

## IN THE COURT OF COMMON PLEAS

## COUNTY OF SUMMIT

TASER INTERNATIONAL, ) CASE NO. 2006-11-7421  
 INC., ) C.A. NO. 24233  
 )  
 Plaintiff, )  
 )  
 vs. ) TRANSCRIPT OF PROCEEDINGS  
 ) VOLUME III OF VII  
 CHIEF MEDICAL EXAMINER )  
 OF SUMMIT COUNTY, OHIO )  
 a/k/a LISA KOHLER, M.D.)  
 )  
 Defendant. )

\* \* \*

BE IT REMEMBERED that upon the  
 trial of the above-entitled matter in the Court  
 of Common Pleas, Summit County, Ohio, before the  
 HONORABLE TED SCHNEIDERMAN, Judge Presiding,  
 and commencing on Monday, April 21, 2008, the  
 following proceedings were had: (TRIAL)

\* \* \*

Eric G. Smead, RPR  
 Official Court Reporter  
 Summit County Courthouse  
 Akron, Ohio 44308

\* \* \*

ERIC G. SMEAD, RPR

DANIEL M. HOBRIAN  
 2008 JUL -8 PM 2:38  
 SUMMIT COUNTY  
 CLERK OF COURTS

COURT OF APPEALS  
 DANIEL M. HOBRIAN  
 2008 JUL -8 PM 2:43  
 SUMMIT COUNTY  
 CLERK OF COURTS

APPEARANCES:

JOHN R. MALEY, Attorney at Law  
KATHLEEN M. ANDERSON, Attorney at Law  
On behalf of the Plaintiff  
TASER International.

PATRICIA RUBRIGHT, Attorney at Law  
MICHAEL J. DEFIBAUGH, Attorney at Law  
On behalf of City of Akron.

JOHN F. MANLEY, Assistant Prosecuting Atty.  
On behalf of the Defendant.

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Steven Prough	39	67	78	--
John Ross	85	105	109	110
Vince Yurick	112	125	133	--
Mike Deihl	136	147	151 159 163	161
Willard T. Congrove	166	172	--	--
Robert Horvath	176	191	199	--
Kristine Albrecht	204	221	--	--
Denise Walsh (Via CD)	228	--	--	--
Michael Evans, Ph.D.	229	261	268	278
Robert Hoffman, M.D.	282	301	313	--
Jeffrey Ho, M.D.	326	382	398	--
Lisa Kohler, M.D.	--	413 447	--	--
George Sterbenz, M.D.	--	468 494	--	--
Dorothy E. Dean, M.D.	--	522	--	--
Charles Love, M.D. (Via CD)	549	--	--	--
Mark W. Kroll, Ph.D.	551	569	579	581

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<u>PLAINTIFF'S WITNESSES:</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>
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Richard Fogel, M.D. (Via CD)	582	--	--	
Charles Wetli, M.D.	583	608	623	
Michael Graham, M.D.	626	643	659	
Patrick Smith (Via CD)	665	--	--	
Vincent J.M. Di Maio (Via CD)	666	--	--	

<u>DEFENDANT'S WITNESSES:</u>				
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Lisa Kohler, M.D.	690	726 727 734	--	
Dorothy Dean, M.D.	739	752	754	
George Sterbenz, M.D.	757	795 803	--	
Barbara Sampson, M.D. (Voir Dire)	808 825 (816)	841 842	--	

<u>CLOSING STATEMENTS:</u>	
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1 MORNING SESSION TUESDAY, APRIL 22, 2008

2 P R O C E E D I N G S

3 - - - -

4 THE COURT: Okay. You ready for  
5 your next witness?

6 MR. MALEY: We are, Your Honor.  
7 Plaintiffs call Dr. Jeffrey Ho to the  
8 stand.

9 THE COURT: Raise your right hand.

10 - - -

11 JEFFREY HO, M.D.

12 a witness, herein called on behalf of the  
13 Plaintiff as on direct examination, being first  
14 duly sworn as provided by law, was examined and  
15 testified as follows:

16 THE COURT: Just have a seat  
17 behind you. And for the record just state  
18 your name.

19 THE WITNESS: My name is Jeffrey  
20 Ho. Last name is spelled H-o.

21 DIRECT EXAMINATION

22 BY MR. MALEY:

23 Q. Good morning, Dr. Ho. How are you?

24 A. Good morning, fine.

25 Q. Good. First, could you tell the court a little

1 bit about your personal background, where you  
2 live, what you do for a living.

3 A. I live in the state of Minnesota. I work as an  
4 emergency physician, that's my primary full-time  
5 job, also as a deputy sheriff in the state of  
6 Minnesota, and an academic researcher for the  
7 University of Minnesota.

8 Q. You might want to move your chair up so just to  
9 be sure the judge can hear you.

10 A. Okay.

11 Q. Are you -- as a medical doctor have you done  
12 scientific research on the effects of low-powered  
13 TASER electronic control devices on human beings?

14 A. I have.

15 Q. And have you done that over a period of years?

16 A. I have.

17 Q. And have you done that with a number of different  
18 human volunteers?

19 A. That's correct.

20 Q. Approximately how many?

21 A. Approximately five to 600. It climbs everyday  
22 because we're still collecting data.

23 Q. And have you done a number of different studies  
24 and experiments?

25 A. Yes, we have.

1 Q. All right. We'll talk about those a little bit  
2 more. In terms of your educational background,  
3 could you please highlight for the judge your  
4 educational background, professional training,  
5 please.

6 A. How far back would you like me to go?

7 Q. Let's start college and then professionally.

8 A. College and medical were in California at Loma  
9 Linda University. Residency training was in  
10 emergency medicine at Hennepin County Medical  
11 Center in Minneapolis; fellowship training was  
12 there also, and law officers training was also in  
13 the state of Minnesota.

14 MR. MALEY: In exhibit book number  
15 five that's there, and Your Honor, I will  
16 find it for Your Honor. You might already  
17 have it up here. Exhibit 5, tab 99.

18 THE COURT: I have it.

19 MR. MALEY: All right.

20 BY MR. MALEY:

21 Q. At Exhibit 99, exhibit book five, joint exhibits,  
22 is this your declaration and your various reports  
23 in this matter?

24 A. It appears to be that, yes.

25 Q. And if we were to turn back towards the end,

- 1           about the last 12, 15 pages is your CV at the end  
2           of Exhibit 99?
- 3    A.   That's correct.
- 4    Q.   And is it an accurate CV at least as of the time  
5           the reports were done in this matter?
- 6    A.   It was accurate at the time the report was done,  
7           yes.
- 8    Q.   And where do you currently practice?
- 9    A.   I practice at the Hennepin County Medical Center.
- 10   Q.   And your day-to-day work at Hennepin County,  
11           that's Minneapolis; is that correct?
- 12   A.   That's correct.
- 13   Q.   What are you engaged in on a day-to-day basis  
14           there?
- 15   A.   Day-to-day clinical practice is taking care of  
16           patients in the emergency department.
- 17   Q.   Are you licensed in that state?
- 18   A.   Yes, I am, for medicine.
- 19   Q.   Do you have any certifications?
- 20   A.   As far as?
- 21   Q.   Any in your profession?
- 22   A.   Professional board certification in emergency  
23           medicine.
- 24   Q.   All right. What other experience do you have  
25           with, for instance, military or law



1 enforcement-wise?

2 A. I have nine years in reserve military experience  
3 in the Medical Corp and also law enforcement  
4 experience by way of being a licensed peace  
5 officer in the state.

6 Q. So you actually have served as law enforcement  
7 officer?

8 A. I currently do so, yes.

9 Q. You still do?

10 A. Yes.

11 Q. As well as a board certified emergency physician?

12 A. That's correct.

13 Q. And you also have devoted substantial time in  
14 your professional career to researching TASER  
15 electronic control devices and their impacts on  
16 humans; is that correct?

17 A. That's correct. Approximately 20 percent of my  
18 protected time is devoted for research.

19 THE COURT: What time?

20 THE WITNESS: 20 percent of my  
21 full-time job, Judge, is devoted towards  
22 research, and so my niche of research is in  
23 this area.

24 THE COURT: Are you doing the  
25 research from your hospital?

1 THE WITNESS: My hospital group,  
2 actually the way our hospital works is that  
3 all of the physicians that are there have  
4 approximately 20 to 25 percent protected  
5 time, and we are directed to find a niche  
6 area of research in something, and that  
7 happens to be the area that I have been  
8 able to choose.

9 MR. MALEY: Exhibit 99, the CV  
10 portion of that, Your Honor, we move that  
11 into admission?

12 MR. MANLEY: No objection.

13 THE COURT: I think that was  
14 stipulated to.

15 MR. MANLEY: That's correct.

16 MR. MALEY: Thank you, Your Honor.

17 THE COURT: So it's admitted.

18 BY MR. MALEY:

19 Q. Now, Dr. Ho, let's talk about your research and  
20 studies and experience with low-powered TASER  
21 electronic control devices. First of all, why  
22 did you choose that area in terms of you had --  
23 as I understand it, professionally within your  
24 organization you had various options you could  
25 have chosen; is that correct?

1     A.   The field is wide open to choose whatever we  
2         would like to study with regard to human  
3         research.  The reason I chose that was that at  
4         the time I was -- this was approximately four or  
5         five years ago now.  This is an area that was  
6         unstudied and some answers needed to be found,  
7         and so this was a natural area for me to move  
8         into because I had dual qualification in that.

9     Q.   The work that you have done with respect to  
10         electronic control devices, have there been other  
11         scientists and medical doctors involved in some  
12         of those studies with you?

13    A.   Yes, there are.

14    Q.   Are they all the same institution or are they at  
15         various hospitals and universities?

16    A.   They're at various institutions.  Some of them  
17         started their training with me and have moved on  
18         to other places.  Some of them have always been  
19         at other places, so we encompass a wide range of  
20         specialists in different areas.

21    Q.   And beyond the work that you have done, and we'll  
22         talk about much of it this morning and try to  
23         highlight for His Honor, there are other doctors  
24         and scientists that have done research on the  
25         effects of electronic control devices on human

1           beings?

2    A.   There are, that's correct.

3    Q.   And are you studied in that research and  
4           literature?

5    A.   I'm sorry?

6    Q.   Do you keep up with the work of others in the  
7           same area?

8    A.   Absolutely.

9    Q.   And has it been four or five years now that you  
10           have been involved in doing specific research  
11           experiments and study in electronic control  
12           devices?

13   A.   That's correct.

14   Q.   Now, in terms of the work that you do in that  
15           regard, is that funded by a TASER manufacturer of  
16           one brand of electronic control devices?

17   A.   Partial funding comes from TASER International,  
18           that's correct.

19   Q.   Is that unusual in terms of funding of research  
20           that a manufacturer would provide that funding?

21   A.   No, I would say that that was typical for most  
22           area of healthcare that study things.

23   Q.   Are you employed by TASER International?

24   A.   I am not.

25   Q.   The time that you spend, for instance, in this

1 matter testifying, doing your work with respect  
2 to this case, are you compensated hourly for  
3 that?

4 A. I am.

5 Q. And do you do that kind of work for others as  
6 well? Have you done other consulting work?

7 A. I have done other cases, yes.

8 Q. The source of your fees for your time, does that  
9 impact your opinions?

10 A. Absolutely not.

11 Q. Has anyone involved in this case suggested what  
12 your opinions, findings, or conclusions should  
13 be?

14 A. No.

15 Q. Now, with respect to the research that you have  
16 done with respect to electronic control devices,  
17 has anyone at TASER suggested what your findings,  
18 conclusions, or observations should be?

19 A. Absolutely not.

20 Q. Are there -- of the various studies you have  
21 done, many of them are now published; is that  
22 correct?

23 A. That's correct.

24 Q. And others are still moving down that path on  
25 peer review publication?

1 A. It's an ongoing process, yes.

2 Q. Are there any studies that you have done with  
3 respect to electronic control devices that are  
4 secret?

5 A. Secret as far as?

6 Q. In terms of they're not going to be made  
7 available to the public?

8 A. No, I would say that they are not made  
9 available -- some of them are not available yet  
10 because they haven't been published, but at some  
11 point our plan is to publish all of them. That's  
12 how the academic world works.

13 THE COURT: What do you mean by  
14 "that's how the academic world works"?

15 THE WITNESS: What I mean by that  
16 is if I were to disclose publically my  
17 research findings, I would not be able to  
18 get them published because they would  
19 consider that not new or novel information,  
20 so many of the research findings that we  
21 find in the lab, for instance, if I was to  
22 discover something today, I have to hold  
23 that sort of close and confidential until I  
24 can actually write it up and pass it  
25 through the peer review process.

1 THE COURT: But you're not  
2 responding to the other part of his  
3 question, that there are research projects  
4 that have been reported to the manufacturer  
5 but not to the public.

6 THE WITNESS: I'm not sure -- I  
7 mean, we're not concealing any information.  
8 Is that the question that's being asked?

9 THE COURT: You used the word  
10 conceal. You're making an assumption. I'm  
11 not making that assumption.

12 THE WITNESS: Okay. Ask the  
13 question again.

14 THE COURT: I think we all know  
15 that like pharmaceutical products that we  
16 have discovered, the public has discovered  
17 there has been surveys, reports, research  
18 which they chose not to publish because  
19 it's not favorable to the manufacturer.

20 THE WITNESS: And we have not done  
21 that. All of our findings have come to  
22 publication at some point. Although we  
23 have some that have not because we're still  
24 in the process of writing them. That's  
25 what I'm trying to get across.

1 BY MR. MALEY:

2 Q. And that was my -- what I wanted to bring out,  
3 Doctor. The ones that have not yet been  
4 published are in the pipeline towards peer review  
5 publication; is that correct?

6 A. That's correct.

7 Q. And are any of those unfavorable?

8 A. No.

9 Q. So there is not some dark secret project that you  
10 were involved in that suggested that these  
11 devices kill people that has not come to light  
12 yet or would not come to light in the future; is  
13 that correct?

14 A. No, that's correct.

15 Q. By the way, do you hold any holdings, any  
16 investments, mutual funds and stocks?

17 A. I do.

18 Q. And do you have any holdings in TASER  
19 International?

20 A. I do.

21 Q. Were you granted any options or particular  
22 specified preferred treatment?

23 A. No, I was not.

24 Q. Did you make a decision on your own to invest in  
25 some shares of TASER?



- 1 A. That's correct.
- 2 Q. And you're not employed by TASER; is that
- 3 correct?
- 4 A. That's correct.
- 5 Q. Now, the other individuals who were involved in
- 6 your research, looking at some of the reports
- 7 that we'll get out in a few moments, sometimes
- 8 there seem to be as many as five to six other
- 9 professionals involved in your research; is that
- 10 correct?
- 11 A. That's correct, that's easily correct. I think
- 12 it's upwards of that sometimes.
- 13 Q. And is that common and typical in scientific
- 14 research?
- 15 A. Very much so. We work as a team, so there is --
- 16 it's not -- it's much bigger than one person can
- 17 do alone.
- 18 Q. All right. One of those individuals who will
- 19 testify in this case is a Dr. Dawes.
- 20 A. I know Dr. Dawes.
- 21 Q. All right. Is he affiliated with your hospital?
- 22 A. He is not.
- 23 Q. Is he practicing in the state of Minnesota?
- 24 A. No, he does not.
- 25 Q. Are you related to him in any way?

1 A. No, other than friends, acquaintances.

2 Q. He actually practices in California; is that  
3 correct?

4 A. That's to my knowledge, yes.

5 Q. Are there any controls that are in place that you  
6 can describe to the court that protect against  
7 bias in the work that you're involved in that  
8 involves TASER electronic control devices?

9 A. Yeah, we actually have several. Before any  
10 project is able to go forward, we must pass it  
11 through at my institution what is called the  
12 institutional review board and that -- it's a  
13 committee of people that examine the research,  
14 make sure it's ethical, make sure it meets  
15 certain standards and make sure we are managing  
16 any perception of conflict or anything like that  
17 or bias, as you say.

18 And so in order to do that, one of the things  
19 that we have done has to -- you may have noticed  
20 on my work there is also Dr. James Minor, who is  
21 on all of my papers. He is a statistician who is  
22 a disinterested party in this. He is the holder  
23 of the data and the analyzer of the data, and he  
24 is sort of the overseer to satisfy those hearings  
25 that we have with the institutional review board.

1 Q. Doctor, do you consider yourself an expert on  
2 emergency medical care?

3 A. I do.

4 Q. And based on the research studies, experiments,  
5 and publications that you have done, do you  
6 consider yourself an expert on TASER electronic  
7 control devices?

8 A. I do.

9 Q. Have you received exposures of those devices  
10 yourself?

11 A. I have.

12 Q. Have you -- and you have published on those  
13 experiments that you have done, correct?

14 A. Yes, that's correct.

15 Q. Are you familiar with the concept of excited  
16 delirium?

17 A. I am.

18 Q. Have you researched that subject?

19 A. I have myself and my team has, yes.

20 Q. Do you consider yourself familiar about the  
21 scientific and medical literature on excited  
22 delirium?

23 A. Yes.

24 Q. Let's talk a little bit more about your research  
25 on electronic control devices. First, I think

1       you have indicated that much of that research has  
2       actually been on human subjects; is that correct?

3     A.   That's correct.

4     Q.   And are these volunteers who are recruited and  
5       signed up to undergo this process?

6     A.   That's correct.  They are -- I mean I would like  
7       to make a point:  They're volunteers.  They're  
8       not recruited.  They're volunteers.

9     Q.   All right.  Has there also been some research  
10       that you have done that involved electronic  
11       control devices involving animals?

12    A.   Just recently, yes.

13    Q.   And what was the circumstance of that recent  
14       animal study?

15    A.   The circumstance meaning?

16    Q.   What was the subject of the research?

17    A.   We are looking right now at doing some  
18       methamphetamine trials, so basically  
19       methamphetamine in combination with TASER  
20       exposure.

21    Q.   Is that something that because of drug laws and  
22       ethics you're unable to do on human beings?

23    A.   That's correct.

24    Q.   So that's been done on animals?

25    A.   That's correct.

1 Q. And is that work underway?

2 A. It is.

3 Q. And have there been any preliminary findings and  
4 conclusions that have come out of your work?

5 MR. MANLEY: Objection,  
6 preliminary findings and conclusions.

7 THE COURT: Had you --

8 MR. MANLEY: I'm objecting.

9 THE COURT: For what reason?

10 MR. MANLEY: He has been asking if  
11 there is any preliminary findings.

12 THE COURT: I heard that.

13 MR. MANLEY: He has not provided  
14 us with any preliminary finding of any  
15 studies with regard to --

16 THE COURT: Is this the report  
17 itself?

18 MR. MANLEY: I don't believe so.

19 THE WITNESS: Judge, I think if I  
20 could --

21 THE COURT: I'm not asking you.

22 THE WITNESS: Okay.

23 THE COURT: Sorry. Is it in the  
24 report?

25 MR. MALEY: Your Honor, these are

1 new studies that he is involved in  
2 presently. I'm asking if there are any  
3 preliminary findings.

4 THE COURT: I think he said yes.  
5 Did you say yes to that or haven't you  
6 answer that?

7 THE WITNESS: That's correct, Your  
8 Honor.

9 THE COURT: Yes, I will let that  
10 stand. Sustained.

11 MR. MALEY: Thank you, Judge.

12 THE COURT: Are you going to ask  
13 another question about it?

14 MR. MALEY: I certainly will, and  
15 I have a number of questions about a lot of  
16 the studies that you have done.

17 THE COURT: The question is, I  
18 think in part, that's not within the  
19 confines of the report that you gave Mr.  
20 Manley. I think that's apparently true.

21 MR. MALEY: That's correct. If I  
22 may preliminarily, Your Honor.

23 BY MR. MALEY:

24 Q. These studies are ongoing presently; is that  
25 correct?

1 A. That's correct.

2 Q. And when you were first retained with respect to  
3 the Mr. Holcomb matter, were those studies  
4 underway?

5 A. These particular studies we are talking about?

6 Q. Yes.

7 A. It was not underway at that time, no.

8 THE COURT: I think in fairness  
9 to, Mr. Manley, I'm going to sustain the  
10 objection. I guess there comes -- if I'm  
11 hearing you right, it comes as a surprise  
12 to you?

13 MR. MANLEY: It does.

14 MR. MALEY: That's fine, Your  
15 Honor.

16 BY MR. MALEY:

17 Q. In terms of the study that you have been involved  
18 in, Dr. Ho, are there more than 15 studies you  
19 have been involved in with humans?

20 A. Yes.

21 Q. And I think you indicated more than 500 human  
22 subjects?

23 A. Something to that effect, yes.

24 Q. Are you aware of any other scientists or medical  
25 professional who has been involved in the extent

1 of human studies that you have with respect to  
2 electronic control devices?

3 A. I'm aware of other researchers of human studies  
4 but probably not to the number of human people  
5 that have gone through -- or folks that have gone  
6 through their volunteer trials, no.

7 Q. And you have devoted -- have you devoted hundreds  
8 of hours to these efforts?

9 A. Easily.

10 Q. It's part of your ongoing practice?

11 A. Yes, it is.

12 Q. And is your law enforcement background one of the  
13 reasons you're interested in the subject?

14 A. I would say that's correct.

15 Q. Of the various tests that you have done and  
16 experiments, did any human beings die in any of  
17 those?

18 A. No, absolutely not.

19 Q. Were any of the humans ever in cardiac arrest?

20 A. No.

21 Q. Were any in pulmonary deficit?

22 A. No.

23 Q. From your experience as an emergency room medical  
24 doctor, board certified, were any at risk of  
25 death?



1 A. No, otherwise we would not have undertaken those.

2 Q. What I would like to do now, Dr. Ho, is highlight  
3 for the court some of those studies, and these  
4 would be at the binder behind to your right --

5 MR. MALEY: Your Honor, I'm going  
6 to hand you what is a binder called  
7 Plaintiff's Previously Disclosed Exhibits  
8 that we will be walking through several of  
9 these. These are not yet admitted, but  
10 they were disclosed and provided to  
11 Plaintiff's counsel.

12 BY MR. MALEY:

13 Q. If you could first direct your attention to  
14 Exhibit 168.

15 A. Okay.

16 MR. MANLEY: 168?

17 MR. MALEY: 168, do you have that?

18 MR. MANLEY: I don't.

19 MR. MALEY: Here.

20 MR. MANLEY: Thank you.

21 BY MR. MALEY:

22 Q. What I want to do initially, Doctor, is just  
23 catalog and highlight what some of these address.

24 168, is this a human study that you were  
25 involved in involving humans?

- 1 A. That's correct.
- 2 Q. Addressing the cardiovascular and physiological  
3 effects of conducted electric weapon discharge in  
4 resting adults?
- 5 A. Yes.
- 6 Q. Did you undertake the scientific method in doing  
7 this study?
- 8 A. Yes, we did.
- 9 Q. And what was basic conclusion -- well, step back.  
10 What was the basic experiment that you  
11 undertook here?
- 12 A. The paper that you are referencing was our  
13 first -- this was our first trial, and so what we  
14 wanted to do with this was simply to take human  
15 volunteers and expose them to a TASER and find  
16 out what effect that has.
- 17 We were not trying to look at any factor. We  
18 just wanted to simply see what effect was the  
19 TASER having on people from a physiologic and  
20 cardiovascular standpoint.
- 21 Q. And what were the -- there were human subjects  
22 involved?
- 23 A. Yes, that's correct.
- 24 Q. And did they receive exposures to electronic  
25 control devices?

1 A. They did.

2 Q. At what sort of tools did you use to measure  
3 physiologic effect, cardiac effects?

4 A. We used blood serum analysis of biomarkers, so  
5 standard things that we use in medicine to  
6 evaluate physiology. We also used EKG machines  
7 to look at both rhythm strips and 12-lead EKGs  
8 which tell us the electrical rhythm of the heart  
9 and also things like vital signs.

10 Q. In the conclusions it states in part that the  
11 TASER X26 "did not affect the recordable cardiac  
12 and electrical activity within a 24-hour period  
13 following a standard five-second application."

14 Is that a conclusion you reached along with  
15 your colleagues?

16 A. That's correct. We followed these folks for 24  
17 hours after their exposure to ensure that no  
18 delayed issues came up.

19 Q. Were you able to detect any induced electrical  
20 dysrhythmias?

21 A. We were not.

22 Q. Or significant direct cardiac cellulose damage?

23 A. We were not.

24 MR. MALEY: Move to admit Exhibit  
25 168.

1 MR. MANLEY: We would object, Your  
2 Honor. It's just an article, a scientific  
3 article that this man has authored and  
4 suggests to the court that, you know, given  
5 the unique profiles of the three  
6 individuals here, it's of limited probative  
7 value.

8 THE COURT: Are we still talking  
9 about this?

10 MR. MANLEY: 168.

11 THE COURT: 168.

12 MR. MALEY: Yes, Your Honor.

13 THE COURT: I will allow it in.

14 I'm not sure why I shouldn't.

15 MR. MALEY: Thank you, Your Honor.

16 BY MR. MALEY:

17 Q. Next, Dr. Ho, I will direct your attention to  
18 Exhibit 182 in the same binder.

19 THE COURT: 172?

20 MR. MALEY: 182, 182.

21 THE WITNESS: Okay.

22 BY MR. MALEY:

23 Q. And is this another publication of a study that  
24 you were a contributor to?

25 A. Yes, that's correct.

1 Q. And did this involve some additional individuals  
2 or different individuals who were involved in the  
3 first study?

4 A. Yes, it did.

5 Q. And did you undertake the scientific method in  
6 analyzing, studying the respiratory effect of  
7 prolonged electrical weapon application on human  
8 volunteers?

9 A. Yes, we did.

10 Q. Did this involve a longer exposure than the first  
11 experiment that you were involved in?

12 A. Yes, it was three times as long as the first.

13 Q. And it was a 15-second exposure?

14 A. That's correct.

15 Q. And the methods that you employed, again, this  
16 was on human volunteers, correct?

17 A. Yes, it was.

18 Q. And in terms of conclusions, it states the last  
19 page: We were unable to detect any respiratory  
20 impairment during either prolonged continuous or  
21 prolonged intermittent conducted electrical  
22 weapon exposure in this study population.

23 Now, how did you monitor that?

24 A. What we utilized on this was a formfitting mask  
25 attached to a breath analyzation machine, so it

1       measures breath-by-breath analysis of everything  
2       that the subject inspires and expires, and there  
3       is nothing that's left to go out to the  
4       environment.

5     Q.   Is that equipment that you used in other  
6       experiments to measure pulmonary function?

7     A.   Yes, it is.

8     Q.   Accepted tool?

9     A.   Very much so.

10    Q.   And this work was then summarized in this  
11       publication, correct?

12    A.   That is correct.

13                   MR. MALEY:  Move to admit Exhibit  
14                   182.

15                   MR. MANLEY:  No objection.

16                   THE COURT:  It's admitted.

17                   MR. MALEY:  Thank you, Your Honor.

18       BY MR. MALEY:

19    Q.   I would direct your attention next -- by the way,  
20       Dr. Ho, this was a 15-minute exposure.

21           Have you also done research with longer  
22       exposures in measuring physiological effects?

23    A.   Sorry, this is 15 seconds.

24    Q.   Sorry, 15 seconds.

25    A.   15 seconds.  And we have done longer than 15

1           seconds, yes.

2       Q.   And what's the longest that you have studied on a  
3           continuous exposure to a human volunteer?

4       A.   We have some exposures up to 45 seconds.

5       Q.   And those -- those 45 seconds continuously?

6       A.   Yes.

7       Q.   With the -- when you do these experiments do you  
8           have the probes on the chest?

9       A.   We have them in various areas but on the chest  
10       for some of them.

11      Q.   For the court's understanding I take it that you  
12           don't fire the probe, you attach it for the  
13           experiments?

14      A.   We have done it both ways.

15      Q.   Oh, you have. All right. And the 45-second  
16           exposure, was there physiologic equipment  
17           connected to the subjects to measure their  
18           performance?

19      A.   Yes, there was.

20      Q.   And did you detect any -- as in the 15-second  
21           exposure, were there any respiratory problems  
22           under the 45-second exposure?

23      A.   No. In fact we find enhanced respiration during  
24           these exposures.

25      Q.   You have experienced the device yourself,

- 1 correct?
- 2 A. That's correct.
- 3 Q. You have personally observed hundreds of
- 4 volunteer subjects undergo exposures, correct?
- 5 A. That's correct.
- 6 Q. And from your experience in doing those tests, do
- 7 humans continue to respirate and breathe during
- 8 TASER electronic control device exposures?
- 9 A. Yes, they do. In every case that's what we have
- 10 found.
- 11 Q. 167 is the next item. This is a study that was
- 12 done?
- 13 A. Hang on. This is another study that was done.
- 14 Q. All right. And this also involved a number of
- 15 different researchers with you?
- 16 A. That's correct.
- 17 Q. And were there any adverse effects on the humans
- 18 that you studied in this report Exhibit 167?
- 19 A. The only adverse effect that we could find was
- 20 from the alcohol that was administered in this
- 21 study.
- 22 Q. All right. And so in this study volunteers
- 23 consumed alcohol --
- 24 A. That is correct.
- 25 Q. -- to test the effects, the interaction of the



1 device with intoxication?

2 A. That's correct.

3 Q. And they continued to breathe?

4 A. They did.

5 Q. And their heart function continued?

6 A. They did.

7 MR. MALEY: Move to admit Exhibit  
8 167.

9 MR. MANLEY: No objection.

10 THE COURT: So admitted. All  
11 three reports you have had an opportunity  
12 to examine and study?

13 MR. MANLEY: Yes.

14 THE COURT: Of course the court  
15 has.

16 BY MR. MALEY:

17 Q. Direct your attention to Exhibit 181.

18 A. Okay.

19 Q. Did this involve 44 volunteers?

20 A. Yes, it did.

21 Q. And could you describe just generally for the  
22 court what the purpose of this particular study  
23 was?

24 A. Well, if you remember, the first study that we  
25 talked about was simply to find out what happens

1 with exposure to humans at rest. This study  
2 particularly was looking at the dynamics of  
3 exhaustion, and so what we wanted to find out is  
4 if we exerted persons and then exposed them to a  
5 prolonged TASER application, this was 15 seconds,  
6 also, was there something in combination there  
7 that we would find?

8 Q. And so you had the subjects physically work?

9 A. Yes.

10 Q. All right. Was it on a treadmill?

11 A. It was a series of anaerobic exercises which also  
12 included a sprint on the treadmill.

13 Q. And what -- you had various co-researchers  
14 involved in this project; is that correct?

15 A. Yes, that's correct.

16 Q. And what were your conclusions with respect to  
17 this study?

18 A. Our conclusions were that once we were able to  
19 get them exhausted, and we would check their  
20 physiologic state at that point; application of  
21 TASER for 15 seconds did not change that  
22 condition any further.

23 MR. MALEY: Move to admit Exhibit

24 181.

25 MR. MANLEY: No objection.

1 THE COURT: All right. It's  
2 admitted.

3 BY MR. MALEY:

4 Q. I direct your attention to Exhibit 190, 190. Was  
5 this a presentation publication that you had  
6 co-authored, made regarding electronic control  
7 devices?

8 A. That's correct.

9 Q. And is this more of an overview of the device and  
10 various scientific and medical aspects of it?

11 A. That's correct.

12 Q. And did you present this at a conference?

13 A. Yes, that's correct.

14 Q. In Germany?

15 A. Yes.

16 Q. Have you presented at various conferences around  
17 the -- first around United States on electronic  
18 control devices?

19 A. Yes.

20 Q. Have you done so internationally?

21 A. Yes.

22 Q. Would these be other physicians and scientists  
23 for instance?

24 A. They are also to -- well, other physicians and  
25 scientists, also to the military and police

1 agencies and basically anybody who is interested.

2 MR. MALEY: Move to admit Exhibit

3 190.

4 MR. MANLEY: No objection.

5 THE COURT: Admitted.

6 BY MR. MALEY:

7 Q. By the way, Doctor, as we get through this list,  
8 I'll try to keep moving quickly, we are going to  
9 talk about your opinions in this particular case.

10 The findings and conclusions that you offer  
11 in this case based in part upon these studies  
12 that you have done on humans?

13 A. Yes, they are.

14 Q. I direct your attention to Exhibit 163. Was this  
15 a -- this is entitled absence of  
16 Electrocardiograph Change Following Prolonged  
17 Application of a Conducted Electrical Weapon in  
18 Physically Exhausted Adults.

19 Is this a different study than the one we  
20 talked about before?

21 A. This is a subset of that same study.

22 Q. All right. And these were 25 volunteers?

23 A. That's correct.

24 Q. And you talk about electrocardiograph change. Is  
25 that the type of -- is that EKG?

1 A. That is correct.

2 Q. So these subjects were wired up with EKGs,  
3 exercised anaerobically, and then received an  
4 exposure of the electronic control device?

5 A. That's correct.

6 Q. And how many seconds were they exposed?

7 A. 15 seconds.

8 Q. And were there any electrocardiograph changes of  
9 significance that you found from this experiment?

10 A. There were none.

11 MR. MALEY: Move to admit Exhibit  
12 163.

13 MR. MANLEY: No objection.

14 THE COURT: It is admitted.

15 BY MR. MALEY:

16 Q. I direct your attention to Exhibit 183, 183.

17 A. Okay.

18 Q. This is entitled Breathing Parameters, Venous  
19 Blood Gases, and Serum Chemistries With Exposure  
20 to a New Wireless Projectile Conducted Weapon in  
21 Human Volunteers. This dealt with breathing?

22 A. It did deal with breathing, yes.

23 Q. Venous blood gas, could you explain to the court  
24 what that means?

25 A. That is blood tests where we check certain

1 parameters of blood drawn from a vein to ensure  
2 what the Ph status is of the person that we are  
3 examining, and Ph is just a measure of acid in  
4 the blood basically.

5 Q. All the research we have talked about so far was  
6 done with the approval of the Hennepin County  
7 Department of Emergency Medicine at your medical  
8 center; is that correct?

9 A. I'm sorry, it's been with the approval of?

10 Q. Of your employer?

11 A. Yes, that's correct.

12 Q. And what were the summary -- the results that you  
13 found for this experiment shown in Exhibit 183?

14 A. We did not find any significant changes, nothing  
15 that would be clinically concerning.

16 MR. MALEY: Move to admit Exhibit  
17 183.

18 MR. MANLEY: No objection.

19 THE COURT: Admitted.

20 BY MR. MALEY:

21 Q. Direct your attention to Exhibit 184 entitled  
22 15-Second Conducted Electrical Weapon Application  
23 Does Not Impair Basic Respiratory Parameters  
24 Venous Blood Gases Or Blood Chemistries as --

25 MR. MANLEY: 184?

1 Q. 184. By the way at the bottom on this one there  
2 is a picture that shows a human volunteer; is  
3 that correct?

4 A. That's correct.

5 Q. Does that show EKG leads attached to the human's  
6 chest?

7 A. That is correct.

8 Q. And the blue item on the face, is that the  
9 breathing apparatus?

10 A. That is correct. That is the mask that they wear  
11 during the exposure.

12 Q. And then there on the right arm is there  
13 something to detect venous blood gases?

14 A. The white portion of the elbow, that --

15 Q. Yes.

16 A. -- that is actually an area where we have drawn  
17 blood from. I believe that is a bandage.

18 Q. All right. And this study, did it find any  
19 detrimental impact from the 15-second exposure?

20 A. It did not.

21 MR. MALEY: Move to admit Exhibit  
22 184.

23 MR. MANLEY: No objection.

24 THE COURT: Admitted.

25 BY MR. MALEY:

1 Q. Now, Exhibit 185 is entitled 15-Second Conducted  
2 Electrical Weapon Exposure Does Not Cause Core  
3 Temperature Elevation in Non-Environmentally  
4 Stressed Resting Adults.

5 The attempt of this study was to determine  
6 core temperature, is that correct, in a human?

7 A. It was to determine core temperature and also the  
8 effect the TASER would have on that temperature.

9 Q. And were there human subjects?

10 A. Yes.

11 Q. 21?

12 A. Yes.

13 Q. Was the scientific method employed?

14 A. Yes, it was.

15 Q. Was there any material increase that you found  
16 from this study in the core body temperature from  
17 electronic control device exposure?

18 A. There was not.

19 MR. MALEY: Move to admit Exhibit

20 185.

21 MR. MANLEY: No objection.

22 THE COURT: Admitted.

23 BY MR. MALEY:

24 Q. Now, Exhibit 186, another 15-second application,  
25 it's titled Conducted Electrical Weapon



1           Application Does Not Impair Basic Respiratory  
2           Parameters, Venous Blood Gases or Blood  
3           Chemistries and Does Not Increase Core Body  
4           Temperature. This describes the prior study,  
5           correct?

6    A.   It encompasses a portion of the prior study, yes.

7    Q.   It expands on that protocol; is that correct?

8    A.   That's correct.

9    Q.   Did they involve 18 subjects?

10   A.   It did.

11   Q.   Was the scientific method employed?

12   A.   Yes, it was.

13   Q.   Were there any material adverse impacts that you  
14           found physiologically from this study on the  
15           human subjects?

16   A.   There were none.

17                           MR. MALEY: Move to admit Exhibit

18                           186.

19                           MR. MANLEY: No objection.

20                           THE COURT: Admitted.

21           BY MR. MALEY:

22    Q.   I direct your attention to Exhibit 187 entitled  
23           the neuro -- could you pronounce that?

24    A.   Neuroendocrine.

25    Q.   Effects of the TASER X26 Conducted Electrical

1           Weapon as Compared to Oleoresin Capsicum.

2    A.   Close, Oleoresin Capsicum.

3    Q.   Is that O.C. spray?

4    A.   That's correct.

5    Q.   Is that the same as pepper spray?

6    A.   That's correct.

7    Q.   So the technical name is the long name.   That's  
8           also called O.C. spray, but many of us know it as  
9           pepper spray?

10   A.   That's correct.

11   Q.   What was the purpose of the Exhibit 187 study  
12           that you engaged in with human volunteers?

13   A.   The purpose of this was to examine markers of  
14           stress that humans can give off during different  
15           stimuli, and the TASER was one of those, and so  
16           that's -- we basically wanted to check what those  
17           markers did during TASER exposure.

18   Q.   And what were the summary or the conclusions that  
19           you reached?

20   A.   The collusions were that while you do get a  
21           slight raise in neuroendocrine markers from the  
22           TASER exposure, there are other things that  
23           actually make those markers go up quite a bit  
24           more and stay up for longer.

25   Q.   Such as O.C. spray?

1 A. O.C. spray is one. We also check with grappling,  
2 so hand-to-hand combat on the ground, that type  
3 thing.

4 Q. So you compared a TASER exposure to another law  
5 enforcement restraint and found the TASER had  
6 less physiologic impacts from this study,  
7 correct?

8 A. That's correct.

9 Q. You compared it also to physical activity?

10 A. Physical -- physical restraint is actually what  
11 we were looking at.

12 Q. And you found -- did you find that the TASER had  
13 less impact than the physical restraint?

14 A. Yes, that's correct.

15 MR. MALEY: Move to admit Exhibit  
16 187.

17 MR. MANLEY: No objection.

18 THE COURT: Admitted.

19 BY MR. MALEY:

20 Q. I direct your attention to Exhibit 161 entitled  
21 Ultrasound Measurement of Cardiac Activity During  
22 Conducted Electrical Weapon Application in  
23 Exercising Adults.

24 A. Okay.

25 Q. Could you describe -- this had 37 subjects; is

- 1           that correct?
- 2    A.   That's correct.
- 3    Q.   All human?
- 4    A.   That's correct.
- 5    Q.   All right.  And 15-second application of a
- 6           electronic control device?
- 7    A.   That's correct.
- 8    Q.   What was -- how was the ultrasound tool used in
- 9           this experiment?
- 10   A.   Well, the ultrasound is a method for us to
- 11           actually use realtime visualization of what the
- 12           heart is doing.  So as we have these people who
- 13           have exercised to exhaustion and then we apply a
- 14           TASER to them for 15 seconds, we are able to
- 15           watch what the heart does in realtime during that
- 16           15-second application.
- 17   Q.   So you're -- while they're receiving exposure,
- 18           your research group was watching the heart on
- 19           ultrasound?
- 20   A.   That's correct.
- 21   Q.   And what were the results that you found from
- 22           this human research study?
- 23   A.   We were able to, during all of these, watch what
- 24           the heart was doing.  We did not see any
- 25           concerning heart rhythm abnormalities.

1 MR. MALEY: Move to admit Exhibit

2 161.

3 MR. MANLEY: No objection.

4 THE COURT: Admitted.

5 BY MR. MALEY:

6 Q. I direct your attention to Exhibit 173, 173,

7 Doctor --

8 A. Okay.

9 Q. -- entitled Prolonged TASER "Drive Stun" Exposure  
10 in Humans Does Not Cause Worrisome Biomarker  
11 Changes. This involved how many subjects --  
12 human subjects?

13 A. 21.

14 Q. And in this subject they were exposed to drive  
15 stuns; is that correct?

16 A. That's correct.

17 Q. Now, you have reviewed materials in, for  
18 instance, the Mark McCullaugh case that is part  
19 of the subject of this lawsuit; is that correct?

20 A. That's correct.

21 Q. Is it your understanding that drive stuns were  
22 applied to Mr. McCullaugh as opposed to probes  
23 shooting through the wire?

24 A. That's correct.

25 Q. And what was the length of the exposures from

1 drive stuns that were applied by your group in  
2 this experiment?

3 A. I believe these were 10-second exposures.

4 Q. Were there any worrisome changes that you found  
5 in the serum biomarkers?

6 MR. MANLEY: Objection.

7 Worrisome, I don't know what that means.

8 THE COURT: I mean is it something  
9 in the language of the report?

10 MR. MALEY: Yes, it is, Your  
11 Honor. I'm just trying expedite it. I can  
12 ask a different way if I you -- I will  
13 withdraw the question.

14 BY MS. MALEY:

15 Q. Did you find any material of adverse impacts from  
16 this study on the drive stuns on human subjects?

17 THE WITNESS: I can answer that?

18 THE COURT: Sure.

19 A. We did not.

20 Q. I direct your attention --

21 MR. MALEY: Move to admit Exhibit  
22 173.

23 MR. MANLEY: No objection.

24 THE COURT: Admitted.

25 BY MR. MALEY:

1 Q. Direct your attention to Exhibit 150 in the same  
2 binder.

3 THE COURT: You're going to figure  
4 out these pages going back and forth, back  
5 and forth?

6 MR. MALEY: Last one, Your Honor,  
7 Exhibit 150.

8 THE WITNESS: Okay.

9 BY MR. MALEY:

10 Q. All right. Exhibit 150, is it something that you  
11 contributed to --

12 A. Yes.

13 Q. -- along with other medical doctors?

14 A. That is correct.

15 Q. All right. And it's entitled Confirmation of  
16 Respiration during Trapezial Conducted Electrical  
17 Weapon Application. What was -- how was this  
18 study done?

19 A. This is a case report. It's not a particular  
20 study, but what this was was we have had many  
21 folks call us or write us and say, "Hey, we would  
22 like to look at this" or "we think that this is a  
23 certain theory that should be looked at."

24 This was one of those where one of the areas  
25 that is taught to provide a drive stun is the

1       trapezius, which is up in the shoulder; and one  
2       of the theories that folks have brought up in the  
3       past is that if you apply a drive stun to this  
4       particular area perhaps can impact the person's  
5       ability to breathe, and so we wanted to examine  
6       that.

7       Q.   And did you use a sonogram to do that?

8       A.   An ultrasound machine, yes.

9       Q.   Ultrasound.   And during the drive stun  
10       application was respiration continued?

11      A.   Yes, it was.

12      Q.   Was Exhibit 150 recently published in the Society  
13       For Academic Emergency Medicine?

14      A.   Yes, it was, just a couple of days ago.

15      Q.   So it's a published item that you and others  
16       contribute to regarding these devices, correct?

17      A.   Yes.

18                           MR. MALEY:   Move to admit Exhibit  
19                           150.

20                           MR. MANLEY:   No objection.

21                           THE COURT:   Admitted.

22       BY MR. MALEY:

23      Q.   All right.   Doctor, let's turn now -- having  
24       summarized the work that you have done on TASER  
25       electronic control device in humans, let's talk a



1 bit about your work in this particular case.

2 What did you undertake in terms of review of  
3 materials with the three deaths in this matter,  
4 the Hyde death, Holcomb and McCullaugh?

5 A. I reviewed everything that was provided to me.

6 Q. That include investigative reports?

7 A. Again, I have a long list of things. I would  
8 have to actually look at my report to give you an  
9 exact.

10 Q. All right. And your report we were dealing with  
11 back at Exhibit 99, you have written reports that  
12 address each of these three incidents; is that  
13 correct?

14 A. That's correct.

15 Q. All right. What I would like to do for  
16 convenience is to direct you through each of the  
17 three.

18 Let's start with Exhibit 99 Dennis Hyde,  
19 which there is a June 30, 2007 segment of your  
20 reports, Exhibit 99. It's about a third of the  
21 way through, Exhibit 99.

22 A. Okay.

23 Q. Do you see that?

24 A. Yes.

25 Q. And is that -- does that summarize the analysis,

1 findings, and conclusions you reached with  
2 respect to Mr. Hyde's death?

3 A. Yes.

4 THE COURT: Where are you at?

5 MR. MALEY: Your Honor, Exhibit  
6 99, if I can.

7 THE COURT: I have 99.

8 MR. MALEY: It's a little bit  
9 back, if I may.

10 BY MR. MALEY:

11 Q. Okay. June 30, 2007 report addressing Mr. Hyde,  
12 first of all, in your review of the toxicology  
13 and autopsy records did you find that there were  
14 drugs in Mr. Hyde's system postmortem?

15 A. Yes.

16 Q. And do you recall those being methamphetamine --

17 A. Yes.

18 Q. -- and Oxycodone?

19 A. Yes.

20 Q. Are those drugs that you are familiar with as an  
21 emergency medicine physician?

22 A. I am.

23 Q. Have you had experience with elicit drug  
24 overdoses in your practice as an emergency room  
25 physician?

1 A. Yes.

2 Q. And do you understand methamphetamine to be  
3 potentially lethal?

4 A. Yes.

5 Q. And the toxicology and medical literature support  
6 that?

7 A. Yes.

8 Q. And the behavior that was described in Mr. --  
9 with Mr. Hyde in the basement of that women's  
10 house on that morning, were there any things that  
11 you noted about Mr. Hyde's behavior as reported  
12 by witnesses on the scene that impacted your  
13 assessment of his demise?

14 A. Well, his behavior was certainly very abnormal,  
15 and I guess it would be characterized as  
16 delirious by many. It was totally out of the  
17 ordinary.

18 Q. And the behavior he exhibited, was it consistent  
19 with methamphetamine intoxication?

20 A. It could be, yes.

21 Q. Was it consistent with excited delirium?

22 A. Certainly could be, yes.

23 Q. Was -- did you read reports of Mr. Hyde having a  
24 lacerated wrist?

25 A. I remember him having a large laceration, yes.

1 Q. I'm going to show you Exhibit 3, a board, that  
2 has a picture of Mr. Hyde. There has been  
3 testimony in this case that this was in the  
4 basement after he was initially restrained for  
5 probe mode.

6 Him having been shirtless, is that something  
7 that is common with excited delirium?

8 A. Various states of public nudity and undress are  
9 definitely associated with, yes.

10 Q. The blood that is shown on Exhibit 3, is that  
11 consistent with the lacerated wrist?

12 A. It's consistent with a large laceration, yes.

13 Q. Now, Doctor, in the Hyde matter did you, after  
14 studying it, reach an opinion as to whether  
15 electronic control device application to Mr. Hyde  
16 contributed to his death?

17 A. Yes, I did.

18 Q. And what is your opinion?

19 A. My opinion was that it did not have anything to  
20 do with his death.

21 Q. Do you draw on the scientific human research that  
22 you have done in part for that?

23 A. Yes, absolutely.

24 Q. Was there evidence that you reviewed of  
25 activities that Mr. Hyde was engaged in after

1        electronic control device applications?

2    A.    I'm sorry.    Would you say that again?

3    Q.    In your review of the materials did you learn  
4        that there were any activities that Mr. Hyde was  
5        engaging in at a point in time after receiving  
6        applications of TASER electronic control devices?

7    A.    Yes.

8    Q.    Talking?

9    A.    Yes.

10   Q.    Resisting?

11   A.    Continuing to get up, yes.

12   Q.    Let's turn to Mr. Holcomb.    If we go back to the  
13        very start of your report, Exhibit 99, August  
14        17th, 2006, does this report, with a subsequent  
15        June 26th, 2007 update, address Mr. Holcomb's  
16        situation?

17   A.    Yes.

18   Q.    Did you learn -- did you undertake a similar  
19        review of the medical literature, medical  
20        evidence in his demise and the investigative  
21        reports?

22   A.    That's correct, yes.

23   Q.    And did you review the toxicology results  
24        postmortem?

25   A.    Yes, I did.

1 Q. And did you learn that Mr. Holcomb postmortem had  
2 had methamphetamine and Ecstasy in his system?

3 A. Yes, I did.

4 Q. Are those both lethal drugs?

5 A. They can be.

6 Q. And is Ecstasy something that you have  
7 encountered professionally in the emergency room  
8 treatment?

9 A. Yes.

10 Q. Do you have an opinion regarding Mr. Holcomb and  
11 whether TASER electronic control device  
12 contributed in any way to his death?

13 A. Again, he had all the same conclusions as the  
14 prior case, no connection.

15 Q. Did you say no connection?

16 A. No connection.

17 Q. And do you draw on your human subject research in  
18 part for that conclusion?

19 A. Yes, that's correct.

20 Q. Turning to Mr. McCullaugh's situation --

21 THE COURT: If you don't mind  
22 going on, where was -- where was the one  
23 you just talked about?

24 MR. MALEY: At the very start of  
25 Exhibit 99, Your Honor. There were two

1 reports that address it, August 17th, 2006,  
2 which is the second page of Exhibit 99  
3 after his declaration --

4 THE COURT: Okay.

5 MR. MALEY: -- for Richard  
6 Holcomb, and following that there is an  
7 update June 26, 2007. So there are two  
8 reports that address that.

9 THE COURT: Now, where is the  
10 third?

11 BY MR. MALEY:

12 Q. Now, directing your attention to Mr. McCullaugh's  
13 situation, in Exhibit 99 --

14 MR. MALEY: And Your Honor, I  
15 would be easily able to find that for you,  
16 if I can be of assistance.

17 THE COURT: Toward the back?

18 MR. MALEY: Towards the back,  
19 about two-thirds of the way back of Exhibit  
20 99 before the CV. There we are, right  
21 there, Your Honor.

22 BY MR. MALEY:

23 Q. Have you found that, Dr. Ho?

24 A. Yes, I have.

25 Q. December 27, 2007?

1 A. Yes.

2 Q. All right. Now, is there within Exhibit 99 a  
3 similar written expert report you have prepared  
4 after undertaking review of the evidence  
5 available in the McCullaugh matter?

6 A. Yes.

7 Q. And for reference point for McCullaugh matter as  
8 you recall being a 295-pound man in the jail  
9 cell?

10 A. I do.

11 Q. All right. And you undertook a similar analysis  
12 as you did with the other two; is that correct?

13 A. That's correct.

14 Q. Was -- from Mr. McCullaugh's situation, we talked  
15 about this a little bit before, but it is your  
16 understanding from your review of the materials  
17 that drive stun applications were attempted?

18 A. That's correct.

19 Q. Do you recall whether they were described by law  
20 enforcement as being effective or ineffective?

21 A. Ineffective.

22 Q. Ineffective?

23 A. Ineffective, yes.

24 THE COURT: Wait a minute. You're  
25 saying which?



1 THE WITNESS: I --

2 THE COURT: They were effective,  
3 weren't they?

4 THE WITNESS: Well, I think what  
5 happened was when they were applied, he was  
6 continuing to resist and would get right  
7 back up and continue fighting. That's what  
8 I remember them.

9 THE COURT: Okay.

10 BY MR. MALEY:

11 Q. Mr. McCullaugh --

12 THE COURT: You mean ineffective,  
13 effective that it stopped him?

14 THE WITNESS: I don't think it  
15 was.

16 THE COURT: You're not saying like  
17 they missed the target? You're not saying  
18 that?

19 THE WITNESS: I'm not suggesting  
20 they missed the target.

21 THE COURT: Because they were  
22 right on the surface of the skin, wasn't  
23 it?

24 THE WITNESS: Correct, I'm  
25 suggesting they failed to take care of the

1                   problem.

2                   THE COURT:   Okay.   Gotcha.

3           BY MR. MALEY:

4   Q.   And it was described by officers and materials  
5       you reviewed?

6   A.   Yes, that's correct.

7   Q.   And in drive stun, does contact need to be made  
8       to the human for there to be an electrical  
9       circuit?

10  A.   Yes, there has.

11  Q.   And that's on the surface in a localized area?

12  A.   Yes.

13  Q.   And if someone is moving, can that make it  
14       difficult to keep an effective circuit?

15  A.   Very difficult sometimes, yes.

16  Q.   Is that something you're familiar with as a law  
17       enforcement officer --

18  A.   Yes.

19  Q.   -- and TASER devices?

20  A.   Yes.

21  Q.   And was it your understanding -- did you have any  
22       understanding as to whether Mr. McCullaugh was  
23       clothed or nude?

24  A.   I believe he was nude at some point.   I don't  
25       know when it started, but he was clothed.   At

1           some point he was nude.

2       Q.   In terms of the basic timeline of Mr.  
3           McCullaugh's situation, did that impact your  
4           opinions with respect to whether TASER  
5           contributed to his demise?

6       A.   Yes, definitely.

7       Q.   And what is your understanding of the basic  
8           sequence of events from officers entering the  
9           cell, attempting the device on him, restraining  
10          him, nurse coming, O.C. spray being used later,  
11          and then a notification being an arrest?

12      A.   My memory of this was that it was quite lengthy;  
13          that several minutes even up to I believe it was  
14          20 or 30 minutes may have passed.

15      Q.   Was -- do you have an understanding as to  
16          whether -- well, was there an occasion where a  
17          nurse applied -- injected some drugs into Mr.  
18          McCullaugh, to your understanding?

19      A.   Yes, there was.

20      Q.   And do you understand that to be sometime after  
21          TASER applications?

22      A.   I don't remember the exact point when that  
23          occurred.

24      Q.   If that's what the evidence showed, would you  
25          have any basis to dispute it?

- 1 A. No, I would not.
- 2 Q. Did you reach an opinion as to whether Mr.  
3 McCullaugh's demise was caused by TASER  
4 electronic control device applications in drive  
5 stun mode?
- 6 A. I'm sorry, restate that again.
- 7 Q. Yeah. Did you reach an opinion as to whether Mr.  
8 McCullaugh's demise was caused or contributed to  
9 by application of TASER device in drive stun  
10 mode?
- 11 A. I reached an opinion that they were not  
12 connected.
- 13 Q. And was that based in part on the human research  
14 that you had done?
- 15 A. Yes.
- 16 Q. Including in drive stun research?
- 17 A. Yes.
- 18 Q. Was Mr. McCullaugh engaging in behavior that was  
19 consisted with excited delirium, based on your  
20 professional opinion?
- 21 A. Yes.
- 22 Q. So, Doctor, in summary, your opinions in these  
23 matters, the TASER device contributed or did not  
24 contribute to their demise?
- 25 A. Did not contribute.

1 MR. MALEY: No further questions,  
2 Doctor. Thank you. Pass the witness.

3 MR. DEFIBAUGH: No questions, Your  
4 Honor.

5 THE COURT: Go ahead.

6 MR. MANLEY: Thank you, Your  
7 Honor.

8 - - - -

9 CROSS-EXAMINATION

10 BY MR. MANLEY:

11 Q. Good morning, Doctor. My name is John Manley. I  
12 represent the Summit County Medical Examiner in  
13 this case and, Doctor, first of all, I would like  
14 to know, we went over quite a few studies that  
15 you have been involved in regarding testing on  
16 TASER electronic control devices on human beings.

17 How many individuals would you say total  
18 there were, human volunteers, throughout the  
19 breathed of these studies that we have talked  
20 about?

21 A. My entire research or just what was represented  
22 here?

23 Q. Just what was represented here today.

24 A. I would have to count up each one.

25 Q. Can you give me a best estimate?

1 A. I would prefer to go up and count up each. I  
2 mean I don't know. I would have to count each  
3 one.

4 Q. Do you want to go do that? Take a minute to do  
5 that then.

6 A. If that's what you would like me to do.

7 Q. I guess, if you can't give me a best estimate.

8 A. Can you give me all the numbers that we were --

9 MR. MALEY: Certainly.

10 THE WITNESS: Sorry, I didn't know  
11 I need to be this accurate.

12 THE COURT: That's all right.

13 Give me a chance to get up and walk around.

14 BY MR. MANLEY:

15 A. It's about 375.

16 Q. I'm sorry, Doctor. About 375 total human  
17 volunteers across the studies that Mr. Maley  
18 walked you through this morning?

19 A. That's correct.

20 Q. Okay. Of those 375 human volunteers, any of  
21 those on methamphetamine?

22 A. Not that they admitted to.

23 Q. Okay. Any of those on Ecstasy?

24 A. Again, not that they admitted to.

25 Q. Any of those appear to be in an acutely psychotic

1 state?

2 A. No.

3 Q. All these human volunteers appeared to you to be  
4 healthy individuals?

5 A. Did they appear to me or were they actually  
6 healthy?

7 Q. Did they appear to you to be healthy individuals?

8 A. They were walking, talking; yes, they appeared to  
9 be healthy.

10 Q. Mr. McCullaugh, with regard to his condition you  
11 indicate that his behaviors are consistent with  
12 excited delirium. You're aware that he was  
13 previously diagnosed with schizophrenia?

14 A. Yes, I am.

15 Q. His behaviors would also be consistent with  
16 schizophrenia?

17 A. Yes.

18 Q. You testified -- strike that.

19 All of these studies were performed involving  
20 the -- they had -- their core issue the effect  
21 that TASER electronic control devices have under  
22 a number of -- under a number of situations, is  
23 that fair to say?

24 A. Sure.

25 Q. How many studies have you performed for TASER

1 would you say overall?

2 A. Studies I perform are not for TASER. They're  
3 actually for my own practice. They have involved  
4 TASER devices.

5 Q. And there are a lot of studies that you have done  
6 that happened to involved TASER devices?

7 A. That's correct.

8 Q. How many studies have you done involving TASER  
9 devices?

10 A. Again, I would have to add them up. Probably  
11 somewhere in the realm of 20, 30.

12 Q. And do you get compensated for studies involving  
13 TASER devices?

14 A. I personally do not get compensated for those  
15 except for my employer because that's part of my  
16 academic protected time.

17 Q. You seem to have a lot of time, Doctor, to  
18 perform studies regarding use of TASER electronic  
19 control device, is that fair to say?

20 A. That is fair to say.

21 Q. So your employer in Hennepin County, Minnesota is  
22 certainly willing to do that. You don't get paid  
23 for these studies, though.

24 Your speeches and presentations that you make  
25 throughout the world, is there any kind of



- 1 compensation that you're paid for those?
- 2 A. I do get compensated for those, yes.
- 3 Q. And TASER compensates you for those?
- 4 A. It depends on what they're asking me to provide
- 5 through lectures.
- 6 Q. And how many lectures has TASER asked you to
- 7 provide?
- 8 A. Again, I don't know. Somewhere in the realm of
- 9 15, 20.
- 10 Q. And every time that you do that they compensate
- 11 you for your time?
- 12 A. Yes.
- 13 Q. And you're paid for your travel expenses?
- 14 A. Yes.
- 15 Q. You recently -- did you recently go to Japan to
- 16 make a presentation?
- 17 A. Last year, yes.
- 18 Q. And you have been to Germany to make a
- 19 presentation for TASER?
- 20 A. Yes.
- 21 Q. And you own TASER shares?
- 22 A. I do.
- 23 Q. How many shares do you own?
- 24 A. Approximately 4,000.
- 25 Q. So when the stock price of TASER rises, you

1 benefit?

2 A. Sure.

3 Q. Do you continue to purchase TASER shares?

4 A. I do.

5 Q. Do you trade TASER stock options?

6 A. I do not.

7 Q. You're not a forensic pathologist?

8 A. I am not.

9 Q. You're familiar with the product warnings put out  
10 by TASER International corporation that discuss  
11 individual susceptibilities, you have seen that  
12 language, individual susceptibilities?

13 A. I have seen those, yes.

14 Q. You testified earlier that some of these study --  
15 studies involving getting people exercising and  
16 then successfully deploying the X26 or having  
17 people consume alcohol and successfully deploying  
18 the X26, that you do this to see, is it fair to  
19 say, if there is something in combination that  
20 you might find?

21 A. That's correct.

22 Q. So it's fair to say that you implicitly  
23 understand that there are a number of factors  
24 that could be in existence any one point in time?

25 A. That's correct.

1 Q. It's understandable you're unable to test for  
2 methamphetamine or illicit drugs with regard to  
3 how it works -- they work in combination with  
4 successful deployments of X26s, correct?

5 A. In humans, yes, that's correct.

6 Q. In humans. You referenced fleetingly earlier  
7 you're hoping to get the study going involving  
8 the use of pigs.

9 Why do you use pigs? Why are they the  
10 preferred alternative to human beings?

11 A. Well, the study is actually going and it's not  
12 necessarily that pigs are the preferred  
13 alternative. In fact we are using sheep at my  
14 lab.

15 Q. I thought Mr. Maley on direct examination you  
16 indicated you're using pigs?

17 MR. MALEY: I asked animals, John.

18 MR. MANLEY: I'm sorry.

19 BY MR. MANLEY:

20 Q. Is it fair to say that pigs are frequently used  
21 in experimentation when human beings are  
22 unable --

23 A. I do.

24 Q. -- to provide any data?

25 A. Pigs are one of the animal models that are used,

1           yes, but there are others.

2       Q.   On the case of Mr. Hyde there has been a lot of  
3           discussion about his methamphetamine ingestion.  
4           You understand and you would agree, would you  
5           not, Doctor, that methamphetamine -- there is no  
6           uniformly lethal level of methamphetamine?

7       A.   I'm aware that fatalities have been reported at  
8           various levels, that's correct.

9       Q.   No doubt about that. That's not quite what I'm  
10          asking. There is no uniform -- there is no level  
11          of methamphetamine that is uniformly lethal  
12          across the population?

13      A.   I believe that's correct.

14      Q.   And same thing can be said for Ecstasy, no  
15          uniformly lethal dosage?

16      A.   Well, actually can I take that back? I believe  
17          that there is a level at some point that if you  
18          give a large enough level of whatever substance  
19          it is you're talking about, it will be uniformly  
20          lethal. I just don't know what that is.

21      Q.   We had Dr. Evans in here yesterday. He is a  
22          toxicologist. He testified that he did not  
23          believe that there is a uniformly lethal level  
24          with regard to methamphetamine or Ecstasy. Do  
25          you know Dr. Evans?

- 1 A. I do not.
- 2 Q. You indicated you knew Dr. Dawes?
- 3 A. I do know Dr. Dawes.
- 4 Q. How do you know Dr. Dawes?
- 5 A. He is part of my research team.
- 6 Q. Have you and Dr. Dawes testified as experts  
7 before on behalf of TASER?
- 8 A. Have not.
- 9 Q. What about Dr. Kroll, do you know Dr. Kroll?
- 10 A. I know Dr. Kroll.
- 11 Q. You and Dr. Kroll have testified before on behalf  
12 of TASER?
- 13 A. I just said I have not, but I'm not sure about  
14 Dr. Kroll.
- 15 Q. You have not testified with Dr. Kroll in this  
16 case involving TASER International corporation?
- 17 A. Not in court, no, no. I mean I have been deposed  
18 before. I'm not sure, but I think that's the  
19 same.
- 20 Q. How many times have you been deposed in cases  
21 involving TASER International corporation?
- 22 A. Two, I believe.
- 23 Q. Twice?
- 24 A. Twice.
- 25 Q. And how many times have you testified on behalf

1 of TASER International corporation?

2 A. This would be number one right here.

3 THE COURT: Is there somewhere in  
4 there you mentioned another case and maybe  
5 you made a report, is that what you did?

6 THE WITNESS: I have made other  
7 reports. I have been deposed.

8 THE COURT: On pending cases?

9 THE WITNESS: Yes, but as far as  
10 courtroom testimony --

11 THE COURT: Got you.

12 BY MR. MALEY:

13 Q. Did you provide a report in the Lomax case, Lomax  
14 vs. Las Vegas Police Department?

15 A. I did, yes.

16 Q. The hypotheses that you had proposed on which you  
17 base your research model has been directed  
18 towards showing that the TASER electronic control  
19 device is safe, is that fair so say, that's your  
20 hypothesis?

21 A. That would actually be the null hypothesis.

22 Q. That would be a what?

23 A. A null hypothesis.

24 Q. Could you explain that to me?

25 A. Sure. When you approach a research project or a

1 question, you're always interested in finding out  
2 what the effect is or what the effect isn't; and  
3 what the effect isn't would be the null, and so  
4 no, I don't think that that's -- I don't think  
5 that's how we approach our projects at all.

6 Q. But is it fair to say when you say the study  
7 involving the use of TASER electronic control  
8 device is a null hypothesis, you're starting off  
9 with the hypothesis that there would be no  
10 effect?

11 A. No, I believe that's what you said. I think you  
12 said that I'm starting off with the TASER being  
13 safe; that would be the null hypothesis.

14 Q. What was the hypothesis then you start off with,  
15 Doctor?

16 A. I'm sorry. It depends on what study you're  
17 talking about. We are looking for effect in  
18 various combinations, so if we are, for instance,  
19 studying intoxication, we are looking for what  
20 the effect is of TASER in combination with  
21 alcohol.

22 Q. I presume, Doctor, is it fair to say you  
23 demonstrated physiological changes in your  
24 experimental --

25 THE REPORTER: Excuse me, Mr.

1 Manley.

2 BY MR. MANLEY:

3 Q. I'm sorry. Doctor, the study that you  
4 referenced, have you demonstrated any physiologic  
5 changes in your experimental efforts associated  
6 with TASER deployment regardless of whether you  
7 characterize these physiological changes as  
8 quote/unquote clinically insignificant?

9 THE COURT: Excuse me a second.

10 Did you get that, Eric?

11 THE REPORTER: Yes.

12 A. If you read through our reports, what we report,  
13 we generally report a clinical significance as  
14 well as a statistical significance, and that's  
15 how things have to go through the peer review  
16 process. There is a difference between those  
17 two.

18 BY MR. MANLEY:

19 Q. Okay. And you would agree in your studies that  
20 the successful deployment X26 appear to cause  
21 pain in the individuals?

22 A. Yes, that's correct.

23 Q. And you would agree that the successful  
24 deployment of the TASER X26 appear to cause  
25 immediate muscle contraction?



1 A. Again, it depends on how it's applied. Some of  
2 the dry stun studies, no.

3 Q. What about the probe studies?

4 A. The probe studies in general, yes, depending on  
5 where you put them, yes.

6 Q. Is it fair to say -- it seems to me, reading of  
7 the some of the literature, that the area of the  
8 chest near the heart is an area that users or law  
9 enforcement officers are advised to try to avoid.

10 A. I'm not aware of that. I'm not aware of  
11 something that says avoid the heart.

12 Q. Is there any concern that you have with regard to  
13 the distance between probe location and heart?

14 A. I'm not sure I understand the question.

15 Q. Sure. Is there -- is there anything in your  
16 studies that indicate that there is a greater  
17 likelihood of negative physiological effect when  
18 distance between the probes and the heart is  
19 shorter rather than longer?

20 A. Well, in fact we are studying that right now, but  
21 we have not found -- we have actually put probes  
22 right over the heart in humans and have found  
23 that not to be the case.

24 Q. But you're continuing to study that right now,  
25 you said?

1 A. Well, it's going to be -- actually it's -- that  
2 portion of the project is over. That's going to  
3 be reported next month at a conference.

4 Q. Okay. So as we stand here today there is no  
5 study out there that allows us to indicate that  
6 distance between probe and heart is -- can be a  
7 problem?

8 A. Well, there is a study that's in my lab that  
9 tells me that it's not. I mean is it publicly  
10 available yet? Not till next month.

11 Q. Apparently it is for right now, you just  
12 indicated?

13 A. You're asking me about that.

14 Q. In the Holcomb case you presumed that the initial  
15 rhythm -- you state that you presume that the  
16 initial rhythm following discharge -- that there  
17 wasn't an initial rhythm following discharge.

18 Do you know for certainty what that rhythm  
19 would have been in Holcomb?

20 A. I can't say with certainty, no.

21 Q. You referred to George Nichols in your report on  
22 Holcomb. Mr. Nichols, is it fair to say, was the  
23 expert for the Plaintiffs who also opined that  
24 the successful deployment of the TASER electronic  
25 control device did contribute to the death of Mr.

1 Holcomb; is that correct?

2 MR. MALEY: Your Honor, I just  
3 impose an objection. His report was not  
4 allowed by federal court in that case.

5 THE COURT: Well, is that person  
6 going to testify?

7 MR. MALEY: No, he is not a  
8 witness, Your Honor.

9 MR. MANLEY: Dr. Nichols is  
10 referenced in his expert report.

11 THE COURT: Dr. Nichols?

12 MR. MANLEY: Dr. Nichols. I just  
13 have a couple of questions, and I will move  
14 on.

15 THE COURT: I'm not quite sure why  
16 you're asking him about this. Is it  
17 something --

18 MR. MANLEY: He was another doctor  
19 who had opined that.

20 THE COURT: But this is not this  
21 doctor's opinion. You want him to say what  
22 another doctor said?

23 MR. MANLEY: I will move on, Your  
24 Honor.

25 THE COURT: Well, anyway.

1 MR. MANLEY: He just referenced  
2 it.

3 THE COURT: If you took too  
4 long -- I'm sorry.

5 MR. MANLEY: That's okay.

6 THE COURT: I was -- so the record  
7 is clear, I will sustain the objection.  
8 I'm just trying to give you an opportunity.

9 MR. MANLEY: Sure, I --

10 THE COURT: Some people accuse me  
11 of thinking out loud. That's one problem I  
12 have, I guess. I should not think at all.  
13 I should just say up or down. Okay. That  
14 got you off kilter anyway, didn't it?

15 MR. MANLEY: No, that's fine. I'm  
16 almost done.

17 THE COURT: That's encouraging.

18 MR. MANLEY: I am concluded.

19 Thank you, Judge.

20 THE COURT: Okay. Any redirect?

21 MR. MALEY: Your Honor, briefly,  
22 first move to admit Exhibit 99, his full  
23 report that I admitted to move into  
24 admission previously.

25 THE COURT: Okay, you have no

1 objection, I guess?

2 MR. MANLEY: No.

3 THE COURT: Okay. I mean I guess  
4 at the end of this you're going to have a  
5 whole -- I guess most of the stuff is all  
6 going in, from what I gather?

7 MR. MALEY: That's correct, Your  
8 Honor. Yes.

9 THE COURT: I'm not going to hold  
10 you up on some technical thing as long as  
11 you get it altogether.

12 MR. MALEY: Thanks, Judge.

13 - - - -

14 REDIRECT EXAMINATION

15 BY MR. MALEY:

16 Q. Doctor, briefly, the reports you have gone  
17 through and were discussing and Mr. Manley was  
18 asking a few questions about it, you mention peer  
19 reviewed, and this current one is then going to  
20 go to conference, the materials that you've  
21 engaged in these studies go through a peer review  
22 process; is that correct?

23 A. That's correct.

24 Q. And in the medical and scientific community can  
25 you briefly explain what that is?

1     A.   Basically what that is is it's use of -- you  
2         submit your work in front of your peers, and they  
3         reevaluate it for things such as scientific  
4         merit, whether it's new or novel; important  
5         information, whether there is bias or anything  
6         like that that's come out in there; whether your  
7         conclusions and your science is valid, and they  
8         make recommendations for either changes or  
9         suggestions or something like that.

10             And once you have made those changes to their  
11             satisfaction, it is considered approved by the  
12             peer review process, and it's okay for  
13             publication as scientific literature.

14     Q.   Is that a form of quality control within the  
15             scientific community?

16     A.   Yes.

17     Q.   The TASER electronic control devices, do you  
18             believe them, based on your research, to be safe  
19             for use on humans?

20     A.   So far we have not found that to be anything else  
21             other than.

22                     MR. MALEY:  No further questions.

23                     Thank you, Dr. Ho.

24                     THE COURT:  I have a couple of  
25             questions.  You know, I'm not -- my

1 question is not necessarily going to draw  
2 to what your report shows, what your  
3 research showed. I was curious, though, as  
4 to some of the basis.

5 Now, these people that you had as  
6 volunteers, at least I think you said, what  
7 was it, 300, something like that, 375 I  
8 think said. I mean, how do you select  
9 these people?

10 THE WITNESS: You know, it's  
11 actually a way that's worked out well for  
12 us. We -- our research group goes to  
13 instructional courses that TASER is  
14 teaching, and we simply are there and say  
15 anybody who would like to volunteer for one  
16 of our studies is free to do so.

17 THE COURT: You mean learning how  
18 to use the devices?

19 THE WITNESS: That's correct.

20 THE COURT: But I mean, don't you  
21 have some questions about their medical  
22 health?

23 THE WITNESS: We do make them fill  
24 out a medical questionnaire which is why  
25 when Mr. Manley asked me do they appear to

1 be healthy, yes, they appear to be healthy.

2 THE COURT: I'm not sure what they  
3 appear to be.

4 THE WITNESS: Well, okay. That's  
5 what I was getting to is I can tell you  
6 what their medical history are, and some  
7 are indeed not healthy.

8 THE COURT: Well, I mean would  
9 you -- would you have a volunteer go  
10 through it if the person has had, for  
11 example, previous heart surgery?

12 THE WITNESS: We have had that,  
13 yes.

14 THE COURT: Have you?

15 THE WITNESS: Yes.

16 THE COURT: And if you knew that  
17 the person's prone to heart attacks at that  
18 point, would you use him or her?

19 THE WITNESS: Well, the  
20 interesting thing about heart attacks is  
21 we're not sure who is ever prone to one. I  
22 can't look --

23 THE COURT: What a good point.

24 THE WITNESS: -- predict that.

25 THE COURT: At risk?



1                   THE WITNESS: At risk, yes. I  
2 will admit we have excluded a couple of  
3 people based on them being on blood  
4 thinning medication, and we're afraid that  
5 what we're going to ask them to do is make  
6 them fall and start bleeding, but from the  
7 standpoint of them coming --

8                   THE COURT: You mean like blood  
9 thinner or something like that?

10                  THE WITNESS: Yes, exactly. But  
11 from them coming to class, the classes that  
12 they are at in general are suggested that  
13 they are going to receive a TASER exposure.  
14 Regardless if I'm there or not, we are  
15 simply asking them for permission to study  
16 their physiologic parameters before,  
17 during, and after their TASER exposure.  
18 I'm not controlling the exposure.

19                  THE COURT: But you understand --  
20 and correct me, folks, if I'm misstating  
21 it, but if I understand what the medical  
22 examiner came up with is that she is not  
23 saying that the TASER caused the death. I  
24 think all three cases she is saying it may  
25 be a contributing factor. Did you get

1                   that?

2                   THE WITNESS: That's the way I  
3 understand it.

4                   THE COURT: Can't you see it's a  
5 fact situation where the TASER -- discharge  
6 from a TASER could be a contributing  
7 factor?

8                   THE WITNESS: Oh, absolutely. And  
9 I have seen cases under such as that. For  
10 instance, you know, I will give you one.  
11 You know, somebody who has at a great  
12 height, and you use a TASER on them, and  
13 they fall, and they fall off a great height  
14 and become injured; I would think that is  
15 certainly a contributing factor.

16                   But in the cases that we have  
17 looked at here, these three, with regard to  
18 what their physiology was and what their  
19 behavior and all of this is well described  
20 in the medical literature, there are  
21 numerous cases that occur just like them  
22 every year where TASER is not involved at  
23 all; the departments don't have a TASER.

24                   So if you're looking at that from  
25 a, you know, a standpoint of what role does

1           TASER play in this, based on what's  
2           available with the scientific literature,  
3           my answer has to be it doesn't play a role  
4           here.

5                   THE COURT: The one that comes to  
6           my mind is the one in the horse pasture.  
7           Is this Holcomb?

8                   MR. MANLEY: Correct.

9                   MR. MALEY: Correct, Richard  
10          Holcomb.

11                  THE COURT: Apparently it  
12          wasn't -- you remember the facts?

13                  THE WITNESS: I remember most of  
14          them, yes.

15                  THE COURT: Apparently a fairly  
16          short period of time after the probe that  
17          he collapsed and I guess died, do you  
18          remember that?

19                  THE WITNESS: I do remember that.

20                  THE COURT: And would you say if  
21          he would have immediately collapsed and  
22          died, the probe -- that he fell over and  
23          died, would you have a different opinion  
24          about that?

25                  THE WITNESS: You know, I may, but

1 given, you know, you know --

2 THE COURT: I mean here it was  
3 fairly clean cut in that one.

4 THE WITNESS: Well, except that of  
5 any of the cases, that's one of the most  
6 intriguing because that's the one where  
7 there was a cardiac defibrillator on the  
8 scene very quickly. I mean, it was right  
9 there. They were able to put this on Mr.  
10 Holcomb and figure out what rhythm he was  
11 in.

12 If you apply electricity to  
13 somebody, we know in medical science that  
14 the rhythm will be one of two things, and  
15 he was in neither, and so that actually  
16 according to -- based on this defibrillator  
17 that they had on scene, so that's one of  
18 the pieces of the puzzle that I took into  
19 account in making that report.

20 THE COURT: Maybe we haven't had  
21 testimony about that yet. Have we?

22 MR. MALEY: Not in open court yet,  
23 Your Honor.

24 THE WITNESS: Sorry, maybe I  
25 wasn't supposed --

1 THE COURT: That's okay. But you  
2 know from reading the reports. What's the  
3 significance of that?

4 THE WITNESS: Well, the  
5 significance of that tells me if we know  
6 that application of electricity will make  
7 your heart do a certain thing, and in Mr.  
8 Holcomb's case application of a TASER did  
9 not make his heart do that --

10 THE COURT: How do we know that?

11 THE WITNESS: Because the cardiac  
12 defibrillator was there at the scene and  
13 applied to him in very rapid fashion.

14 THE COURT: I thought he had  
15 passed by that point.

16 THE WITNESS: Well, clinically he  
17 was unconscious or unresponsive, but I  
18 don't think death had been declared at that  
19 point. In fact the officers were  
20 attempting to resuscitate him with the  
21 defibrillator.

22 THE COURT: The other question I  
23 had that I thought Mr. Manley asked, I  
24 mean, I assume the TASER gives your school  
25 or your hospital, rather, a grant?

1 THE WITNESS: In some cases they  
2 have; yes, in order to do certain research,  
3 yes.

4 THE COURT: Well, they don't give  
5 them a general grant, TASER?

6 THE WITNESS: No, it is per the  
7 proposed project.

8 THE COURT: Okay. And how many  
9 times have they done that?

10 THE WITNESS: One.

11 THE COURT: Just one. And how  
12 much was that for?

13 THE WITNESS: Well, currently we  
14 are in the process of using it. It is for  
15 about \$100,000, and it's this  
16 methamphetamine sheet that we are doing.

17 THE COURT: But you must have had  
18 grants before you got that one, didn't you?

19 THE WITNESS: I have had other  
20 grants from other folks other than TASER,  
21 if that's what you're asking.

22 THE COURT: I'm not sure what I'm  
23 asking. The portion that you just  
24 testified to have nothing to do with what  
25 you're talking about. I mean did they give

1                   you grants for those to do those reports,  
2                   the ones you testified to?

3                   THE WITNESS:   So am I getting --  
4                   do I get a grant to generate a report?

5                   THE COURT:    In the past?

6                   THE WITNESS:   No, I do not.

7                   THE COURT:.   How is the money  
8                   generated then?

9                   THE WITNESS:   When I --

10                  THE COURT:    There must be some  
11                  method that TASER pays you, the hospital,  
12                  somebody.

13                  THE WITNESS:   Yes.   When I'm asked  
14                  to write a report on something such as this  
15                  case, this is done outside my employer.

16                  THE COURT:    I understand.   I'm not  
17                  talking about your report as an expert --  
18                  I'm sorry, maybe I'm not clear -- in the  
19                  three instances where somebody died.   I'm  
20                  talking about the reports that you spent an  
21                  hour or so testifying about.

22                  THE WITNESS:   Oh, okay.   So how do  
23                  I receive --

24                  THE COURT:    Studies, I should use  
25                  the word studies.

1 THE WITNESS: So here is how my  
2 practice works: I'm looked as a full-time  
3 employee of my hospital group. About 60  
4 percent of my time is spent seeing  
5 patients, and about 20 percent of my time  
6 is spent administrative. As a medical  
7 director I work for some EMS services and  
8 for some police departments.

9 And then 20 percent of my time is  
10 in my research arena or my lab, and so all  
11 of that is encompassed under my job  
12 expectation of my primary employer. So my  
13 employer actually says, you know, Jeff, we  
14 want you to go to the lab and spend this  
15 much time studying these -- studies these.

16 THE COURT: I got all that.

17 THE WITNESS: So that's how I get  
18 paid everyday, if that's your question.

19 THE COURT: I assumed, maybe  
20 incorrectly, that TASER pays the money to  
21 the hospital or some other vehicle to help  
22 set off your time, your 20 percent time  
23 working on these studies.

24 THE WITNESS: There are occasions  
25 where TASER will cover like, for instance,



1 if I need an extra day in the lab, they  
2 will cover to -- they pay to have somebody  
3 cover my shift, but as far as a general  
4 grant that says we are going to do this --

5 THE COURT: Or donations, none of  
6 that?

7 THE WITNESS: Well, you're giving  
8 me some ideas. As of right now, no.

9 THE COURT: That's something to  
10 consider. All right. But you can't say to  
11 this court that you can duplicate these  
12 circumstances and make a conclusion on  
13 them?

14 THE WITNESS: What I can --

15 THE COURT: Like I want to  
16 experiment with the gun, we take it to the  
17 firing range or someplace and fire the gun  
18 and we can tell something from that, right?

19 THE WITNESS: Sure. And that's  
20 exactly what we have done in our studies.

21 THE COURT: But you haven't -- at  
22 least if I gather right, you haven't had  
23 the same circumstance with the drug use?

24 THE WITNESS: What I would say is  
25 we have not had the exact same

1           circumstances described in all of these  
2           cases, but we have a very large  
3           preponderance of studies that are out there  
4           that are all pointing in the same  
5           direction, and so with that I'm pretty  
6           confident in the conclusions that we're  
7           coming to.

8                     Do I have every answer that is out  
9           there or have we answered every question  
10          that's answerable? No. And that's  
11          actually good because that's why I get to  
12          keep going to work everyday and doing the  
13          work that I do.

14                    THE COURT: Find more things for  
15          you to study.

16                    THE WITNESS: Absolutely. But  
17          we're now into this for four or five years,  
18          and we have done a boatload of work and  
19          come to a lot of conclusions on this.

20                    THE COURT: You can probably keep  
21          it going for a few more years.

22                    THE WITNESS: And then some.

23                    THE COURT: Okay. No more  
24          questions. Anything else?

25                    MR. MALEY: No, Judge, thank you.

1 MR. MANLEY: No, thank you.

2 THE COURT: Thank you for your  
3 time.

4 THE WITNESS: Thank you.

5 (The witness was excused.)

6 MR. MALEY: Take a break? Would  
7 this be a convenient time.

8 THE COURT: I assume we still have  
9 witnesses.

10 MR. MALEY: We do, Your Honor.

11 THE COURT: Let's make 15 minutes.  
12 Let's say 10 minutes to 11.

13 MR. MALEY: Thank you.

14 (A recess was had.)

15 THE COURT: We are ready to  
16 proceed? Let's go.

17 MR. MALEY: Yes, Your Honor.

18 Plaintiff calls Dr. Lisa Kohler.

19 THE COURT: Doctor, raise your  
20 right hand.

21 - - -

22 LISA KOHLER, M.D.

23 a Defendant, herein called on behalf of the  
24 Plaintiff as on cross-examination, being first  
25 duly sworn as provided by law, was examined and

1 testified as follows:

2 THE COURT: You might have a  
3 different place to put that tag.

4 THE WITNESS: Well, I hang it off  
5 there somewhere so I know I have got it.

6 THE COURT: Okay. State your name  
7 for the record.

8 THE WITNESS: Dr. Lisa Kohler,  
9 K-o-h-l-e-r.

10 THE COURT: I thought you say you  
11 were calling her tomorrow? You're going --

12 MR. MANLEY: John Maley is calling  
13 her right now on cross.

14 CROSS-EXAMINATION

15 BY MR. MALEY:

16 Q. Good morning, Dr. Kohler. How are you?

17 A. Good morning.

18 Q. Doctor, as the Chief Medical Examiner of Summit  
19 County you oversee the entire office; is that  
20 correct?

21 A. That's correct, yes.

22 Q. And while you still do somewhat of the autopsies  
23 yourself, you have other deputy medical examiners  
24 who do autopsies individually, correct?

25 A. That's correct, yes.

1 Q. You don't do every autopsy in every Summit County  
2 death, correct?

3 A. Correct.

4 Q. And in these three matters here, Mr. Hyde,  
5 Holcomb, and McCullaugh, you did not perform the  
6 autopsies, correct?

7 A. That's correct.

8 Q. And you did not perform or prepare the autopsy  
9 reports, correct?

10 A. Correct.

11 Q. Which is standard practice that you can't do all  
12 of them, so your deputy does many of them?

13 A. That is correct, yes.

14 Q. You have other administrative obligations as  
15 well, correct?

16 A. Yes.

17 Q. And you were present during the Hyde, Holcomb,  
18 and McCullaugh autopsies, correct, doing the  
19 autopsies themselves?

20 A. Could you restate that, please?

21 Q. Certainly. The autopsies themselves that were  
22 done on Mr. Holcomb -- Hyde, Holcomb, and  
23 McCullaugh, you did not perform the autopsies,  
24 true?

25 A. I did not perform them, that's correct.

1 Q. And you did not make any changes to the report of  
2 autopsy that was prepared by Dr. Sterbenz or  
3 Dean, correct?

4 A. I did review the draft reports. I don't recall  
5 at this time any changes I may have made in any  
6 of those at that time.

7 Q. And sequentially we have the Hyde, Holcomb, and  
8 McCullaugh death, correct?

9 A. That's correct.

10 Q. Dr. Sterbenz did the autopsy and the report on  
11 the Hyde death, correct?

12 A. Yes, that's correct.

13 Q. And then Dr. Dean did the Holcomb autopsy and  
14 report?

15 A. Yes.

16 Q. And then Dr. Sterbenz did the McCullaugh autopsy  
17 and report; is that correct?

18 A. That's correct.

19 Q. And you didn't duplicate the work that they had  
20 already done; is that correct?

21 A. That's correct.

22 Q. And you would expect Dr. Dean, for instance, in  
23 the Holcomb matter to be more knowledgeable about  
24 the Dean autopsy than you since she performed it,  
25 correct?

- 1 A. Yes.
- 2 Q. Let's talk a little bit about your background,  
3 Doctor. You're a forensic pathologist, correct?
- 4 A. That's correct.
- 5 Q. And you were board certified -- is it ten years  
6 ago?
- 7 A. Yes.
- 8 Q. Did you have any training in electrical  
9 engineering, correct?
- 10 A. That's correct.
- 11 Q. You are not a cardiologist?
- 12 A. Correct.
- 13 Q. You are not an electrophysiologist?
- 14 A. That's correct.
- 15 Q. You have no training in cardiology, correct?
- 16 A. Aside from basic training during medical school,  
17 no, I do not.
- 18 Q. You have no training in electrophysiology,  
19 correct?
- 20 A. Correct.
- 21 Q. At the time of these autopsy reports you did not  
22 consider yourself to be an expert on TASER  
23 electronic control devices, correct?
- 24 A. Correct.
- 25 Q. You don't consider yourself an expert on

1 electronic control devices today, correct?

2 A. That's correct.

3 Q. You're not a toxicologist?

4 A. No.

5 Q. You have never published any manuscripts,  
6 articles, treatises, or chapters or volumes  
7 regarding sudden death, correct?

8 A. That's correct.

9 Q. Or on the subject of electrophysiology?

10 A. Correct.

11 Q. Or on cardiology?

12 A. Correct.

13 Q. Or on electronic control devices?

14 A. That's correct.

15 Q. Or on excited delirium?

16 A. You are correct.

17 Q. And you do not know the electrical  
18 characteristics of a TASER electronic control  
19 device, correct?

20 A. I do not know the physics behind it or the  
21 mechanisms, no.

22 Q. You don't know the amperage of an X26 TASER  
23 discharge, correct?

24 A. Off the top of my head, no, although I have  
25 available for review.



1 Q. And you don't know the frequency or the wave  
2 forms, correct?

3 A. Again, I have literature available, but I do not  
4 maintain that in my head.

5 Q. And you don't know the voltage that actually  
6 enters the human being from application of an X26  
7 whether in probe mode or drive stun mode,  
8 correct?

9 A. That's correct.

10 Q. You agree that high voltage in and of itself is  
11 not dangerous to the human body?

12 MR. MANLEY: Objection.

13 THE COURT: Wait a minute. You're  
14 objecting?

15 MR. MANLEY: Yes.

16 THE COURT: Overruled. If she can  
17 answer.

18 A. Could you repeat?

19 BY MR. MANLEY:

20 Q. I will rephrase it. And actually, Doctor, to be  
21 fair, you don't know whether high voltage in and  
22 of it itself is dangerous to the human body?

23 A. I'm not familiar enough with the engineering  
24 aspects of it to state definitively.

25 Q. And you don't have a scientific, medical, or

1           engineering basis to say one way or the other,  
2           correct?

3    A.   Correct.

4    Q.   You don't have any scientific, medical, or  
5           engineering evidence that TASER electronic  
6           control devices increase body temperature in  
7           humans, correct?

8    A.   I believe there are case reports out there  
9           indicating that, but I can't cite a particular  
10          one.

11   Q.   And in your deposition you were unable to provide  
12          any information in response to that question,  
13          correct?

14   A.   That's correct, yes.

15   Q.   And you don't hold the opinion that application  
16          of the TASER device to Mr. Hyde caused him to  
17          have a high fever, correct?

18   A.   No, I have not stated that.

19   Q.   Now, in connection with Mr. Holcomb's demise your  
20          office issued a press release, correct?

21   A.   Correct, that's true.

22   Q.   The press release had some language that was a  
23          little bit different than the autopsy report, do  
24          you agree?

25   A.   Yes.   It's geared toward educating the public as

1 to what our findings are, so we tend to go away  
2 from the medical terminology and use lay terms.

3 Q. And that press release stated, quote, In summary  
4 Mr. Holcomb died from the effects of  
5 methamphetamine and Ecstasy which sensitized his  
6 heart to the effects of the TASER equipment that  
7 was required to subdue him.

8 Do you recall that statement?

9 A. That's sounds familiar, yes.

10 Q. And you don't hold yourself out as an expert on  
11 drugs and they're sensitizing or desensitizing  
12 the heart, correct?

13 A. On that specific aspect, no, I do not.

14 Q. And you have never researched methamphetamine and  
15 Ecstasy and their effect of sensitizing or  
16 desensitizing the heart to the effects of  
17 electronic control devices, correct?

18 A. Although I have not done individual research, my  
19 basic medical training allows me to understand  
20 that the use of intoxicating drugs such as  
21 stimulants like you have mentioned can have  
22 negative cardiac effects.

23 Q. And are you aware that there has been studies  
24 that show that cocaine, for instance, can  
25 actually increase the fibrillation threshold in

1 hearts?

2 A. That study has a flaw, as I see it, in that the  
3 anesthesia used is Isoflurane which is known to  
4 have cardioprotective effects. Because of that  
5 issue I can't say whether there is truly a  
6 protective effect based on that study.

7 Q. You have never published on the subject of  
8 methamphetamine or Ecstasy and the sensitizing of  
9 those drugs on the heart, correct?

10 A. No, I have not.

11 Q. Now, you don't hold yourself out as an expert in  
12 any specialty dealing with the physiologic  
13 effects of a TASER deployment on the human body,  
14 correct?

15 A. Could you restate that, please?

16 Q. Yes. You do not hold yourself out and as an  
17 expert in any specialty dealing with the  
18 physiologic effects of the TASER deployment on  
19 the human body, correct?

20 A. Correct.

21 Q. And prior to issuance of the Holcomb report, for  
22 instance, you yourself did not conduct any  
23 independent medical research, correct?

24 A. We do not conduct independent medical research  
25 prior to certifying causes of death as a manner

1 of practice.

2 Q. And so no independent research occurred before  
3 the Hyde, Holcomb, or McCullaugh autopsy reports,  
4 correct?

5 A. Nor with any other cases that we certify, that's  
6 correct.

7 Q. Now, you remember, do you not, that you were  
8 contacted after one of these three deaths by a  
9 physician from Johns Hopkins Hospital --

10 A. Yes.

11 Q. -- Dr. Hugh Calkins, an electrophysiologist?

12 A. Yes. I don't recall whether he contacted me or  
13 if it was recommended that I contact him. Yes,  
14 there was a conversation.

15 Q. All right. And you did not consult with any  
16 cardiologist or electrophysiologist on any of the  
17 three autopsy reports in these matters, correct?

18 A. A formal consultation, no.

19 Q. Now, let's talk a little bit about the drugs on  
20 board in several of these matters. You're aware  
21 that methamphetamine is a stimulant?

22 A. Yes.

23 Q. You understand it to be potentially fatal?

24 A. Yes.

25 Q. And you understand that the consequences of

1           methamphetamine on a human can include irregular  
2           heartbeat?

3    A.   Yes.

4    Q.   Increased blood pressure?

5    A.   Yes.

6    Q.   Convulsions?

7    A.   Possibly, yes.

8    Q.   Death?

9    A.   Yes.

10   Q.   You're aware that there have been numerous deaths  
11       in this country from methamphetamine?

12   A.   Yes.

13   Q.   And you're aware there has been numerous deaths  
14       in this country from Ecstasy?

15   A.   Yes, there are numerous drug deaths, and there is  
16       numerous intoxications at varying level of drug  
17       concentration.

18   Q.   And you're aware that among healthy teenagers  
19       there have been deaths from Ecstasy and  
20       methamphetamine?

21   A.   Yes, there are.

22   Q.   Now, your office has actually rendered a number  
23       of autopsy reports independent of any TASER  
24       applications involving methamphetamine,  
25       correct --

1 A. That's correct.

2 Q. -- where methamphetamine has been found on its  
3 own to be the cause of death, correct?

4 A. Yes. When there are no other intervening  
5 factors, it has been cited as the cause of death.

6 Q. And your office has rendered similar reports  
7 finding Ecstasy to be the cause of death in other  
8 matters that did not involve TASER applications,  
9 correct?

10 A. Yes, there have been other situations.

11 Q. And cocaine as well?

12 A. Correct, yes.

13 Q. Now, you believe that Mr. Holcomb's drug use was  
14 within the hours preceding his death, correct?

15 A. That's correct, yes.

16 Q. You believe that to be true with Mr. Hyde as  
17 well, correct?

18 A. Yes.

19 Q. Oxycodone can be fatal, correct?

20 A. Yes, it can be.

21 Q. And that was in Mr. Hyde as well?

22 A. Yes. It was at a level that is not uniformly  
23 lethal, and it is below the levels that are  
24 normally reported as lethal when combined with  
25 other drugs, but it can be.

1 Q. And the Oxycodone was combined with  
2 methamphetamine in Mr. Hyde's situation, correct?

3 A. Yes.

4 Q. Let's talk a little bit about excited delirium.  
5 We have had a little bit of testimony on that  
6 from Dr. Evans and Dr. Hoffman. That's a term  
7 that you know to be an accepted forensic  
8 pathology term, correct?

9 A. I wouldn't say it's accepted. There is some  
10 dispute over it, but there are many forensic  
11 pathologists that do opine that excited delirium  
12 exists.

13 Q. And you recall in your deposition testimony I  
14 asked you that question and you agreed that it  
15 was an accepted forensic pathology term?

16 A. Yes.

17 Q. It's interchangeable from your perspective with  
18 the term drug psychosis?

19 A. Yes.

20 Q. And you believe Mr. Holcomb and Mr. Hyde were in  
21 drug-induced psychosis, correct?

22 A. Yes, I would agree with that.

23 Q. And you chose -- your office chose not to use the  
24 phrase excited delirium because there are other  
25 causes of excited delirium beyond just drug



1           intoxication, correct?

2    A.   Yes.  We are trying to be more specific as to the  
3           etiology of the state of the individual.

4    Q.   So excited delirium could be a larger umbrella,  
5           within it there is drug psychosis?

6    A.   Yes.

7    Q.   And there is psychiatric illness?

8    A.   Yes.

9    Q.   The drug-induced psychosis that Mr. Hyde and Mr.  
10          Holcomb were suffering from -- was not caused in  
11          your opinion by an electronic control device,  
12          correct?

13   A.   That's correct, yes.

14   Q.   You believe that to have been caused, for  
15          instance, in Mr. Holcomb by the methamphetamine  
16          and the Ecstasy?

17   A.   Yes.

18   Q.   The National Association of Medical Examiners,  
19          you're a member of that organization?

20   A.   Yes, I am.

21   Q.   And they have a guide on manner of death  
22          classification, correct?

23   A.   They do.

24   Q.   And that guide states that deaths due to the  
25          acute effects of a drug or poison such as alcohol

1           poisoning, excited delirium from acute cocaine  
2           intoxication, have traditionally been classified  
3           as accident, do you agree?

4    A.   When dealing with a situation where there are no  
5           additional forces, yes, that would be  
6           traditionally considered an accident; however,  
7           they are not exclusive, and it's not an exclusive  
8           diagnosis if there are additional forces applied  
9           to that person that would go beyond the drug  
10          intoxication, such as if the person were shot  
11          with a weapon; then you could go on to homicide  
12          because the homicidal manner of death takes  
13          greater precedence over the accidental manner of  
14          death.

15   Q.   But for acute illicit drug intoxication,  
16          traditionally if that is the cause of death by  
17          itself, that's been determined by the NAME  
18          guidelines, N-A-M-E, to be accident, correct?

19   A.   Generally that would be true.

20   Q.   All right.  You recall a cocaine death that  
21          occurred during police restraint involving an  
22          individual named Solomon Dandridge?

23   A.   Yes, I'm familiar with the name.

24   Q.   Your office determined that cause of death to be  
25          excited delirium from cocaine intoxication,

1 correct?

2 A. That does sound correct, yes.

3 Q. Now, if someone is dying of excited delirium,  
4 defibrillation is usually ineffective, correct?

5 A. Usually but not always.

6 Q. And a defibrillator -- Dr. Ho was mentioning  
7 this. Defibrillators in the last 20, 25 years  
8 have become common, for instance, implantable  
9 defibrillators, correct?

10 A. Yes.

11 Q. Persons that are prone to arrhythmias can have a  
12 small defibrillator implant in their chest; is  
13 that correct?

14 A. Yes, that's true.

15 Q. And you're aware that, for instance, Dr. Kroll,  
16 one of our expert witnesses in this case, has  
17 spent many years designing those devices,  
18 correct?

19 A. That's my understanding, yes.

20 Q. And there are also now, and probably have them in  
21 this building, AEDs, which are automatic -- or  
22 Automated Electronic Defibrillators; is that  
23 correct?

24 A. Yes, that's correct.

25 Q. And these are devices that are in office

1 buildings or sports fields can be used on someone  
2 who might need that resuscitation, correct?

3 A. That is correct, yes.

4 Q. All right. And those defibrillators when they're  
5 applied to a human, the computer with the leads  
6 tracks the rhythm of the person's heart, correct?

7 A. Yes, they do.

8 Q. Now, the literature on excited delirium holds  
9 that and concludes that defibrillation is usually  
10 ineffective in excited delirium deaths, do you  
11 agree?

12 A. It is usually, but not always.

13 Q. And you don't have any basis to dispute that  
14 literature yourself, correct?

15 A. No, I do not.

16 Q. Now let's turn for a minute to Mr. Vince Di Maio.  
17 Are you familiar with Dr. Di Maio?

18 A. Yes, I am.

19 Q. And do you know him to be a forensic pathologist  
20 in Texas?

21 A. Yes, he is.

22 Q. You have met him previously?

23 A. Yes, I have.

24 Q. All right. You understand him to be well  
25 regarded in the forensic pathology field?

1 A. I know that he is well known. I do not know how  
2 he is regarded in the field.

3 Q. I asked you that question in your deposition, and  
4 you agreed he was well regarded in the pathology  
5 field.

6 A. At the time I answered at the depo, yes. Since  
7 that time I have had further discussions with  
8 individuals that would call that into question.

9 Q. Your office has several of his texts, correct?

10 A. Yes, we do.

11 Q. And your office does not spend taxpayer moneys on  
12 unreliable texts, correct?

13 A. We would not have; however, I don't know which of  
14 those would have been bought with taxpayer money  
15 and which of those are parts of private  
16 collections. Many of those books were purchased  
17 by my predecessor with his own funds, so I can't  
18 say if taxpayer money was spent.

19 Q. Dr. Di Maio has authored several texts in the  
20 area of forensic pathology, correct?

21 A. Yes.

22 Q. Including texts on excited delirium?

23 A. Yes.

24 Q. Your office consulted Dr. Di Maio's text in  
25 conjunction with doing the Holcomb autopsy

1 report, correct?

2 A. I believe that was correct, yes.

3 Q. And that was done for support for the report,  
4 correct?

5 A. That was done to get additional information on  
6 the report.

7 Q. Doctor, let's turn to some other questions.

8 You're aware that sometimes people die in police  
9 custody and it's not because of anything that  
10 anyone did?

11 A. That is correct.

12 Q. In-custody deaths have occurred throughout  
13 history, correct?

14 A. Yes.

15 Q. Long before electronic control devices powered by  
16 two three-volt photocells, correct?

17 A. That is correct.

18 Q. Do you know Dr. Warner Spitz?

19 A. Yes.

20 Q. He is a forensic pathologist --

21 A. Yes.

22 Q. -- in Detroit?

23 A. That is correct.

24 Q. All right. He -- is he a reputable forensic  
25 pathologist?

1 A. I know he is well known. I can't say  
2 specifically what his reputation would be.

3 Q. Do you have his text in your office?

4 A. Yes, I do.

5 Q. What is it entitled?

6 A. Medical/Legal Investigations of Death. He is the  
7 editor.

8 Q. Doctor, are you aware that just last week we were  
9 for the first time provided from your office  
10 through your counsel with the medical examiner's  
11 file in the McCullaugh death?

12 A. I don't know when that was actually produced.

13 Q. I will represent to you as an officer of the  
14 court that it came last week, and Mr. Manley can  
15 correct me if I am wrong on that.

16 Are you familiar with that file?

17 A. I'm familiar with that exists in our office, yes.

18 Q. And your office has record retention requirements  
19 to contain and maintain those files, correct?

20 A. Yes, we do.

21 Q. And that file contains a report from Dr. Warner  
22 Spitz, correct, regarding the McCullaugh death?

23 A. That I do not know for certain. I have not  
24 looked through it thoroughly at this time.

25 Q. And Dr. Spitz's report concluded that

1 Dr. McCullaugh died of natural causes unrelated  
2 to the police, correct?

3 A. That may be true. I have not read his report  
4 recently to recall the content.

5 Q. Your office hasn't changed the McCullaugh autopsy  
6 report or death certificate at any point in time,  
7 has it?

8 A. No, it has not.

9 Q. Doctor, let's talk a little bit about preparing  
10 autopsy reports. Do you agree that it is  
11 important to use medical and scientific  
12 principles in preparing autopsy reports?

13 A. Yes, it is.

14 Q. Let's turn to the subject of blood, bleeding, and  
15 a term called exsanguination.

16 A. Yes.

17 Q. Is that the medical terminology for bleeding to  
18 death?

19 A. Yes, that is correct.

20 Q. Now, Mr. Hyde had a significant lacerated wrist,  
21 correct?

22 A. Yes, he did have a laceration.

23 Q. Has your office concluded before in an autopsy  
24 report that a decedent bled to death?

25 A. Yes. In situations where we can demonstrate that



1           there is a significant loss of blood and in the  
2           autopsy we see that the person is pale and there  
3           is very little blood remaining in the body, based  
4           on the circumstances in our findings we can rule  
5           exsanguination, and we have ruled that way.

6   Q.   Humans can die from bleeding to death, you agree?

7   A.   Yes.

8   Q.   And humans can die from the radial artery being  
9           severed, correct?

10  A.   They can, although it's a long process, requires  
11       some persistence.

12  Q.   Have you ever seen a severed radial artery?

13  A.   Yes.

14  Q.   And have you ever reached conclusions in autopsy  
15       report that the decedent attempted suicide?

16  A.   Yes.

17  Q.   And have you ever found the decedent has  
18       committed suicide?

19  A.   Yes.

20  Q.   On many occasions?

21  A.   Yes.

22  Q.   And you have reached that conclusion where  
23       someone severed their radial artery, correct?

24  A.   I believe so, yes.

25  Q.   Now, when someone bleeds to death, you don't know

1           what the physiologic mechanism of death is,  
2           correct?

3    A.   I don't know the exact mechanism of that person;  
4           however, in the process of bleeding to death as  
5           you lose a significant quantity of your blood, it  
6           causes the heart to fail.

7    Q.   And you don't know whether the person would go  
8           into ventricular fibrillation, for instance,  
9           correct?

10   A.   That's correct.

11   Q.   You don't know whether they go into pulseless  
12          electrical activity, correct?

13   A.   That is correct.

14   Q.   Now, in the Hyde case you don't know whether  
15          there was any attempt made by your office to  
16          measure the amount of blood loss, correct?

17   A.   I know that we did not measure the amount of  
18          blood loss because there is no scientific method  
19          to do so.

20   Q.   And you did not do anything to determine the  
21          amount of blood that was lost yourself, correct?

22   A.   As I just stated, correct.

23   Q.   You do know -- do you know whether Mr. Hyde had  
24          prior to death lost a significant volume of  
25          blood?

1 A. He had lost blood. I do not know what your  
2 quantification is for significant. There was  
3 blood loss, and it was referenced on the death  
4 certificate.

5 Q. Doctor, have you seen Exhibit 3 during the trial,  
6 the photographs of Dennis Hyde from the basement?

7 A. Yes, I saw that at the time of the trial; and I  
8 have also seen it previously in our office.

9 Q. All right. Did you see that prior to the autopsy  
10 report?

11 A. Yes.

12 Q. Would you agree with me that there is significant  
13 blood on Mr. Hyde's body in that picture?

14 A. I would say that there is blood staining on the  
15 body. I'm not going to quantify it as  
16 significant.

17 Q. You're not an expert on how much time would be  
18 required for someone to exsanguinate from  
19 transection of the radial artery, correct?

20 A. It would depend upon so many factors it's not  
21 possible to state how long that would take in a  
22 particular person.

23 Q. But you're not an expert on that subject,  
24 correct?

25 A. That's correct.

1 Q. Nor is Dr. Sterbenz, correct?

2 A. No.

3 Q. Correct statement?

4 A. Correct.

5 Q. Would you agree that a grayish, ashy color to the  
6 skin indicates that a person is losing blood?

7 A. Quite possibly, yes.

8 Q. By the way, Doctor, your office has not concluded  
9 in any cases that metabolic acidosis was the  
10 cause of death, correct?

11 A. That would be a mechanism of death rather than a  
12 cause of death, so it would be unlikely to  
13 certify a death as such.

14 Q. And you have been unable to make a diagnosis of  
15 metabolic acidosis postmortem, correct?

16 A. Correct.

17 Q. Not just in these three cases but in any case,  
18 correct?

19 A. Correct.

20 Q. Now, let's talk a little bit about mental health.  
21 Can a person's prior mental health history be  
22 relevant in determining cause of death?

23 A. Yes, it can.

24 Q. And if a person has a previous psychiatric  
25 history, they can be predisposed to certain

1 conditions that might affect their health,  
2 correct?

3 A. Yes, that is correct.

4 Q. Including cardiac dysrhythmias, correct?

5 A. Correct.

6 Q. Let's talk a little bit about ventricular  
7 fibrillation. In the electrocution --  
8 electrocution cases -- well, first of all, you  
9 have had some cases in your office involving  
10 electrocution, correct?

11 A. Yes, high voltage and low voltage.

12 Q. And the electrocution cases to your understanding  
13 that when someone is electrocuted and dies, they  
14 usually go into ventricular fibrillation,  
15 correct?

16 A. That is a frequent happening, yes, yes.

17 Q. You don't know how long after ventricular  
18 fibrillation someone would die, correct?

19 A. That's correct.

20 Q. You don't know whether it would be seconds,  
21 hours, or days, correct?

22 A. Correct.

23 Q. You don't have the background, education,  
24 training, or experience to render an opinion on  
25 that subject, do you?

1 A. It would depend upon the circumstances to  
2 determine how long that happened. I can't say in  
3 general about that -- lengths of time.

4 Q. And in your deposition previously you told me  
5 under oath that you didn't have the background,  
6 education, training, or experience to render an  
7 opinion on that subject, correct?

8 A. I could not render it as a general basis, that is  
9 correct.

10 Q. Do you agree that electricity does not build up  
11 in the body, correct?

12 A. Yes.

13 Q. Now, you were present when Dr. Dean testified  
14 back in the Holcomb matter, correct, in  
15 deposition?

16 A. At which --

17 Q. Couple years back, the first deposition?

18 A. At the first deposition in the wrongful death  
19 suit, no, I was not present.

20 Q. You're aware that Dr. Dean testified in the  
21 Holcomb matter that --

22 MR. MANLEY: Is this the first  
23 deposition?

24 MR. MALEY: Yes, I apologize.

25 BY MR. MALEY:

1 Q. And I think you're correct. I apologize. I  
2 misspoke. In the -- let me move forward.

3 You don't have any scientific, medical, or  
4 engineering proof to support an opinion that  
5 application of a TASER device contributed to Mr.  
6 Holcomb's death, correct?

7 A. Proof, no. But I do have scientific evidence and  
8 information that would suggest that it may have,  
9 yes.

10 Q. With respect to Mr. Hyde, your office offers the  
11 opinion that the TASER contributed to his death;  
12 is that correct?

13 A. Correct.

14 Q. You don't know how the TASER device possibly  
15 contributed to Mr. Hyde's death, correct?

16 A. I don't know the exact mechanism that was  
17 elicited by the TASER weapon; however, I do have  
18 multiple ways in which the TASER could have  
19 contributed, and we do believe that it did.

20 Q. But you have testified previously under oath, did  
21 you not, that you did not know how the TASER  
22 contributed to his death, correct?

23 A. I do not know the exact mechanism, that is  
24 correct.

25 Q. And you cannot state within reasonable degree of

1        medical certainty how a TASER device might have  
2        contributed to Mr. Hyde's death?

3        A.    Again, I can't say specifically which mechanism  
4        was involved.

5        Q.    Now, time in terms of an even such as a TASER  
6        application occurring sometime prior to another  
7        event occurring, in your assessment of these  
8        three deaths the time or temporal proximity is a  
9        factor that you rely on, correct?

10       A.    Yes, we have evaluated time factor.

11       Q.    And beyond temporal proximity there is no other  
12       medical or engineering or scientific evidence of  
13       an electronic control device causing Mr. Hyde's  
14       death that you relied upon, correct?

15       A.    The temporal association is a large portion;  
16       however, there are basic forensic tenants that we  
17       have relied upon to show that they can have an  
18       effect.

19       Q.    Direct your attention, if you could, Doctor, to  
20       your deposition of July 18th, 2006 that's in that  
21       notebook, if you could turn to page 89 and 90.

22       A.    Yes.

23       Q.    And I asked you at the bottom of page 89, The  
24       Hyde autopsy report concluded that TASER  
25       electronic control device caused Mr. Hyde's



1 death?

2 And you said: Yes, it was in combination  
3 with the acute methamphetamine intoxication.

4 My next question: Again, was the temporal  
5 sequence of TASER application followed within  
6 some short period of time of Mr. Hyde going into  
7 arrest that led your office to conclude the  
8 electronic control device was the cause of death  
9 in the Hyde situation?

10 Answer: That is a portion of this decision.

11 The next question I ask you: And there is no  
12 other medical, engineering, or scientific  
13 evidence of electronic control device causing Mr.  
14 Hyde's death, correct? What was your answer?

15 A. I said correct. There --

16 Q. Thank you.

17 A. -- at the time I did not have the reports in  
18 front of me to refer to; however, we did have, as  
19 I mentioned, basic forensic tenants that we used  
20 to make our correlation.

21 Q. And did I read that testimony and question  
22 accurately?

23 A. You did, yes.

24 Q. Now, you're aware that Dr. Dean has testified  
25 that she could not say whether to any degree of

1 reasonable certainty the TASER device contributed  
2 to Mr. Holcomb's death to as little as  
3 .0000000001 percent. Are you aware of that?

4 MR. MANLEY: I'm going to object.

5 Your Honor, the figure didn't -- counsel is  
6 suggesting that the figure came from Ms.  
7 Dean. It was a figure suggested by Mr.  
8 Maley at deposition.

9 MR. MALEY: Which she admitted to,  
10 Your Honor. You're going to hear that from  
11 her under oath. That will be tied up.

12 THE COURT: Overruled.

13 A. That was a statement because we cannot know the  
14 exact numerical contribution of an individual  
15 disease process or injury towards death. We do  
16 not quantify it.

17 BY MR. MALEY:

18 Q. And you don't have any basis to dispute  
19 Dr. Dean's testimony about the .00000001 percent  
20 correct?

21 A. As I just stated, that is correct.

22 Q. Thank you, Doctor. Let's talk about the subject  
23 of options that are available to medical  
24 examiners and coroners in issuing cause and  
25 manner of death determinations.

1           One option for the medical examiner is to  
2           state undetermined, correct?

3    A.   That is one of the available, yes.

4    Q.   And you have had occasions where you have been  
5           unable to determine cause of death, correct?

6    A.   That's a different question, but yes, there have  
7           been times that I have determined the cause of  
8           death would be listed as undetermined.

9    Q.   And that's been true, you have had some adult  
10           cases where you have listed cause of death to be  
11           undetermined, correct?

12   A.   I believe that's true, yes.

13   Q.   And the NAME guide on manner of death states that  
14           undetermined is less than 50 percent certainty.

15           Do you have any basis to dispute that?

16   A.   No.   Cause of death is cause of death.

17   Q.   Now, the medical examiner has an obligation to  
18           correct autopsy reports that need altered,  
19           correct?

20   A.   That is true, yes.

21   Q.   Or to change or edit them, do you agree?

22   A.   Yes.

23   Q.   And the National Association of Medical Examiners  
24           in its guidelines states the cases are seldom, if  
25           ever, truly closed because the conclusions may be

1 changed based on new, relevant, and material  
2 information. Do you agree?

3 A. That is true. We are held to that.

4 Q. You agree with Mr. Hyde's situation, for  
5 instance, let's talk about his restraint from law  
6 enforcement and the use of an electronic control  
7 device.

8 You agree that the sooner Mr. Hyde received  
9 medical care there was a better prognosis for  
10 him, correct?

11 A. That would be true, yes.

12 Q. He was in a serious health condition when  
13 officers arrived?

14 A. Yes.

15 Q. Lacerated artery, correct?

16 A. Correct.

17 Q. In delirium?

18 A. Yes.

19 Q. He was at risk of death, do you agree?

20 A. I would agree, yes.

21 Q. And the sooner medical care can be provided to  
22 him, the better the potential outcome, do you  
23 agree?

24 A. I would agree, yes.

25 Q. And that's because he was in a state of

1           intoxication as well, correct?

2     A.   Yes, he was.

3     Q.   And bleeding, correct?

4     A.   That's correct.

5     Q.   You're aware that the -- and you have heard the  
6           testimony in open court that law enforcement  
7           could not get to him to restrain him initially  
8           because of behavior?

9     A.   Yes, that's my understanding.

10    Q.   And you don't have any basis to dispute that, do  
11       you?

12    A.   No, I do not.

13    Q.   And you don't have any basis to dispute the  
14       paramedic testimony that they could not get to  
15       him until he was restrained?

16    A.   I have nothing to dispute that.

17    Q.   Now, Dr. Dean has testified under oath in  
18       deposition that she could not say that but for  
19       the TASER device Mr. Holcomb would have lived.  
20       Do you have any basis to dispute that testimony?

21    A.   It's a situation that did not exist; therefore,  
22       we cannot assess it, so we accept the statement  
23       as it stands.

24    Q.   And you have not been -- in previous testimony  
25       disputed that testimony she made?

1 A. I don't dispute it, no.

2 MR. MALEY: Those are all  
3 questions I have. Thank you.

4 THE COURT: Okay. You can step  
5 down.

6 MS. RUBRIGHT: Your Honor, I have  
7 a few questions.

8 THE COURT: You do?

9 MS. RUBRIGHT: Yes.

10 - - - -

11 CROSS-EXAMINATION

12 BY MS. RUBRIGHT:

13 Q. Dr. Kohler, would you agree not all consecutive  
14 events are related to one another; is that  
15 correct?

16 A. That's correct, yes.

17 Q. You indicated in your depositions that were taken  
18 in the Holcomb case that you did -- you became  
19 familiar with the Canadian research study on  
20 electronic control devices; is that right?

21 A. Yes.

22 Q. And you became aware of that study after you  
23 issued the report of autopsy on the Hyde case?

24 A. Yes, that would be correct.

25 Q. And in that Canadian research study you

1        acknowledge that there was no definitive evidence  
2        that exists that implicates a causal relationship  
3        between electronic control devices and death,  
4        isn't that correct?

5    A.    That is true, it does not state a causal  
6        relationship.

7    Q.    And you conceded also not only that fact but also  
8        you conceded that you had no scientific or  
9        engineering evidence to contradict that study  
10       isn't that correct?

11   A.    At that time that, yes.

12   Q.    And that was after the Hyde death?

13   A.    Yes.

14   Q.    You also have stated that you do not know whether  
15        or not methamphetamine desensitizes the heart to  
16        the effects of an electronic control device,  
17        isn't that correct?

18   A.    I don't recall that statement particularly -- of  
19        using the terminology desensitize versus  
20        sensitized correctly.

21   Q.    Okay. If you want to go to your deposition from  
22        2006, page 65, the question was asked: You don't  
23        hold yourself out as an expert on drugs and their  
24        sensitizing or desensitizing the heart, do you?

25   A.    Right. That is a correct reading.

1 Q. And your answer was that --

2 A. Correct.

3 Q. -- that you do not know whether or not it  
4 sensitizes or desensitizes?

5 A. No, I do not hold myself out as an expert. That  
6 was the question. The answer to that was, No, I  
7 do not hold myself out an expert as to whether or  
8 not the drugs sensitize or desensitize the heart.

9 Q. You also stated that Dr. Sterbenz is the one who  
10 actually did the autopsy and wrote the report of  
11 autopsy; is that correct?

12 A. With regards to which case?

13 Q. With the Hyde case.

14 A. With the Hyde case, that is correct, yes.

15 Q. And if we look at the report of autopsy, it's  
16 your signature that's on that report of autopsy;  
17 is that right?

18 A. Both of ours appear. My signature appears on  
19 most of the autopsies coming out of the office to  
20 indicate that I have reviewed the findings and  
21 I'm in agreement with those that have been  
22 reported by my pathologists.

23 Q. So when your signature is on any report of  
24 autopsy, you agree with everything that's in that  
25 report of autopsy, is that a fair statement?



1 A. That is correct.

2 Q. And when you issued your report of autopsy on the  
3 Hyde death, you had in your possession all of the  
4 interviews that were done of the police officers;  
5 is that correct?

6 A. We had numerous interviews. I would have to  
7 assume that they are all of the interviews. I  
8 don't know that there are -- if I had everything  
9 or not.

10 Q. Did you review the interviews of the police  
11 officers who took the witness stand in this case,  
12 Officer Horvath?

13 A. Yes, I have reviewed multiple witness statements  
14 regarding that. I can't say exactly which ones I  
15 have at this time frame.

16 Q. My question to you is did you re -- did you  
17 review the police officers who testified in front  
18 of you the other day, Officer Yurick, Officer  
19 Horvath, Officer Ross, did you read your reports  
20 before you issued the report of autopsy?

21 A. I don't know at what point I read them. I have  
22 read them numerous times throughout this period  
23 since 2005 until today's date. I can't say when  
24 they were read, at what time in that time  
25 continuum.

1 Q. So are you telling me you might not have even  
2 read them before you issued the report of  
3 autopsy?

4 A. Word for word I probably did not read them. They  
5 were reviewed. They were also reviewed by my  
6 physician, Dr. Sterbenz. He read through them  
7 very thoroughly and would have discussed those  
8 issues with me at that time.

9 Q. You heard Paramedic Deihl testify in this  
10 courtroom; is that correct?

11 A. Yes, I did.

12 Q. And you know that EMS was on scene during part of  
13 this struggle with Mr. Hyde; isn't that right?

14 A. That is correct, yes.

15 Q. Didn't you feel that what the paramedics had to  
16 say about the condition of Mr. Hyde was very  
17 important?

18 A. Yes. And we reviewed their EMS run sheets. We  
19 obtained that information.

20 Q. You had an EMS run sheet, and you reviewed that  
21 before the report of autopsy?

22 A. Yes, it was reviewed.

23 Q. You also had the individual interviews of  
24 Paramedic Dort and Paramedic Deihl, did you not?

25 A. I believe there was a summation of what they

1       said. I don't recall right now if there were  
2       individuals off of each, specific one for Deihl  
3       and Dort, I don't recall.

4    Q. Do you know whether or not you reviewed the  
5       interviews of Paramedic Deihl and Paramedic Dort  
6       before you rendered your report of autopsy on  
7       Dennis Hyde?

8    A. I don't have independent recall of every specific  
9       step I went on that case or any other case at  
10      this time. The information was there. I have  
11      seen it since. I cannot say specifically at what  
12      point in time I reviewed those. The information  
13      was reviewed prior to the determination as to the  
14      cause and manner of death.

15   Q. But you can't say whether you ever reviewed those  
16      statements and interviews from those paramedics  
17      before you signed them, you signed the report of  
18      autopsy?

19                   MR. MANLEY: Objection, asked and  
20                   answered.

21                   THE COURT: Overrule. I don't  
22                   know if she did answer.

23   A. I don't have direct recollection of when exactly  
24      in the time continuum those --

25                   THE COURT: All she is asking you

1 is before.

2 THE WITNESS: As I said, Judge, no  
3 disrespect, I don't recall when in the  
4 continuum. I read those specific reports.  
5 I reviewed very many reports over time, and  
6 I have reviewed numerous reports,  
7 especially recently, and I can't say  
8 complete -- with complete certainty that I  
9 looked at each word of those reports prior  
10 to the certification. Dr. Sterbenz was the  
11 primary person on those, and he would have  
12 done the in-depth review of the  
13 investigations.

14 I would have looked at pieces of  
15 it during that time frame. I can't say  
16 with certainty I looked at the entire  
17 report at that time.

18 BY MS. RUBRIGHT:

19 Q. So your answer is no, you can't tell me whether  
20 you did or didn't before you --

21 MR. MANLEY: Objection --

22 Q. -- reported the autopsy on Hyde?

23 MR. MANLEY: -- asked and  
24 answered.

25 THE COURT: I think that is what

1                   she is saying. Overruled. You want to  
2                   answer that question.

3    A.   My answer is as it stands.

4           BY MS. RUBRIGHT:

5    Q.   You made this statement in your deposition that  
6           based on your experience Hyde died because of a  
7           combination of drugs, electrical pulse  
8           incapacitation, and agitated behavior.

9           Can you tell me what experience you ever had  
10           in the use of an electronic control device before  
11           the report of autopsy was issued on Dennis Hyde?

12   A.   We have had one case come through our office  
13           prior to that that we had direct experience with  
14           in which an individual was exposed to a TASER  
15           weapon. However, in that situation the  
16           individual was not controlled and was  
17           subsequently shot by the police.

18           We had that opportunity to be aware of  
19           information and reviewed extensive information on  
20           TASER that was provided to me by the company as  
21           well by the Akron Police Department.

22   Q.   So you're telling me you used the shooting case  
23           as your prior experience to render an opinion on  
24           the Hyde death?

25   A.   No. You asked if my experience was in electronic

1 control device usage. That was case that we had  
2 had previously. As I stated before, we also had  
3 received extensive information on electronic  
4 control devices at the time we were making the  
5 decisions.

6 So it would be the training as a forensic  
7 pathologist, my experience, as in my caseload, as  
8 well as the caseloads of my colleagues, in seeing  
9 how a weapon inflicts forces on an individual and  
10 cause physiologic stress on that individual which  
11 coupled with other physiologic stress --

12 Q. Doctor, I'm not asking you --

13 MR. MANLEY: Your Honor, if she  
14 could let the witness finish the answer to  
15 the question.

16 THE COURT: I think it's a simple  
17 question.

18 MS. RUBRIGHT: I think so, too.

19 THE COURT: Why don't you repeat  
20 the question.

21 BY MS. RUBRIGHT:

22 Q. Dr. Kohler, can you tell me what case was your  
23 prior experience with electronic control devices  
24 before Dennis Hyde? Just tell me the name.

25 A. Right now I don't recall the name. It was

1           mentioned in one of the previous deposition, I  
2           believe Mr. Johnson -- I don't recall the name or  
3           the case number. It has been mentioned in  
4           previous depositions.

5                       THE COURT: You're talking about  
6                       the shooting case?

7                       THE WITNESS: Yes.

8           BY MS. RUBRIGHT:

9    Q. And in this shooting case you never deliberated  
10       about whether or not an electronic control device  
11       contributed to the death, because he was shot;  
12       isn't that right?

13   A. In that situation we had another force that  
14       exceeded that of the TASER. He was shot, and the  
15       gunshot wound was the cause of death, yes.

16   Q. You made the statement that you have no idea  
17       whether physical exertion increases the hazards  
18       of methamphetamine use; is that correct?

19   A. I don't recall that statement specifically, but  
20       if you have that in the deposition, I would agree  
21       to that.

22   Q. Well, I'm representing to you that is it in your  
23       '06 deposition at page 96, if you want to review  
24       that.

25                       THE COURT: What volume is that

1 one in?

2 MS. RUBRIGHT: Your Honor, we  
3 didn't provide the deposition, I don't  
4 believe. We may have another copy.

5 THE COURT: I thought you were  
6 going to tell me some black lined --

7 MR. MALEY: If you would like, we  
8 have them, Your Honor. Those are the  
9 depositions, if you would like them.

10 THE COURT: They have been filed  
11 or not filed.

12 MR. MALEY: They have not been  
13 filed.

14 THE COURT: I guess I shouldn't  
15 look at them. The reference you had,  
16 before I forget to ask you, Ms. Ambrose  
17 Rubright --

18 MS. RUBRIGHT: Yes, Your Honor.

19 THE COURT: You asked the medical  
20 examiner about a Canadian report?

21 MS. RUBRIGHT: Yes.

22 THE COURT: And were you also then  
23 -- cross-examined her about the deposition?  
24 Those are questions you had in the  
25 deposition?



1 MS. RUBRIGHT: That's correct,  
2 Your Honor.

3 MR. MALEY: And, Your Honor, I  
4 stand corrected. All those depositions are  
5 of record. They were filed with our  
6 summary judgment motions.

7 THE COURT: Oh. Maybe I can have  
8 the book back then.

9 MR. MANLEY: You want to give him  
10 the book back?

11 THE COURT: What page?

12 MS. RUBRIGHT: Your Honor, I'm  
13 going to withdraw instead of take the time.

14 THE COURT: Where was the Canadian  
15 questions?

16 MS. RUBRIGHT: It was a question  
17 about methamphetamine use.

18 THE COURT: No, no. What page?

19 MS. RUBRIGHT: It was on page 96.  
20 I'm withdrawing the question, Your Honor.  
21 I'm just withdrawing the question.

22 THE COURT: I'm sorry. I'm  
23 talking about something that was asked and  
24 answered about five minutes ago.

25 MS. RUBRIGHT: You mean the

1 Canadian research study?

2 THE COURT: Yes.

3 MS. RUBRIGHT: It was in the 2006  
4 deposition pages 62 through 65.

5 THE COURT: That was my -- thank  
6 you very much.

7 MS. RUBRIGHT: I'm sorry, Your  
8 Honor. I misunderstood what you were  
9 asking.

10 THE COURT: You don't have to  
11 apologize. I may not have stated it  
12 clearly. Go ahead, please.

13 BY MS. RUBRIGHT:

14 Q. Dr. Kohler, did you interview a single witness  
15 that was on scene at the death of Dennis Hyde  
16 before you issued your report of autopsy?

17 A. I personally did not.

18 Q. Do you know whether anyone in your office  
19 interviewed any police officer, paramedic, or  
20 anyone at the scene of Dennis Hyde's death?

21 A. My investigator would have communicated with  
22 individuals there. During the course of autopsy  
23 Dr. Sterbenz had the opportunity to speak with  
24 some of the police officers at that time. I  
25 don't know which of those may have been present

1 at the time.

2 Q. Do you know what officers were at the autopsy of  
3 Dennis Hyde?

4 A. The one that comes to mind is Detective Juanita  
5 Elton.

6 Q. And was Detective Elton at the scene of Dennis  
7 Hyde, was she one of the officers responding to  
8 that?

9 A. No, she would not have been responding. I do not  
10 know whether she was present at the scene or not.

11 Q. You made the statement that it does not matter to  
12 you when Hyde died, is that correct, the time of  
13 his death really doesn't matter to you?

14 A. The exact time of death is really unknown at this  
15 point and the --

16 THE COURT: She asked you a  
17 different question.

18 THE WITNESS: I'm leading to it,  
19 Your Honor.

20 THE COURT: Okay.

21 BY MS. RUBRIGHT:

22 Q. It would go a lot quicker if you just answer the  
23 question.

24 MR. MANLEY: Your Honor.

25 THE COURT: Are we picking on the

1 witness?

2 MR. MANLEY: I'm not going to make  
3 any characterizations, Judge, but if Ms.  
4 Ambrose would please just let the witness  
5 finish the answer.

6 THE COURT: I think Ms. Ambrose is  
7 correct, I mean --

8 THE WITNESS: Could you repeat the  
9 question? I'm sorry.

10 BY MS. RUBRIGHT:

11 Q. Yes. You made the statement that it does not  
12 matter to you when Dennis Hyde died; is that  
13 correct?

14 A. The exact moment of his death is not needed to be  
15 known in the situation. The fact that he died  
16 soon after the TASER is what we were looking for.

17 Q. So let's talk about soon. How did you come up  
18 with the time lapse between a TASER use and his  
19 death if you don't care what time he died?

20 A. We don't know the exact time lapse in this  
21 situation. The whole situation was quite  
22 chaotic. We have times recorded on dispatch  
23 records. We have times that are recorded by the  
24 TASER weapons. These were synchronized for  
25 mathematics efforts; however, I can't say that

1           they were specifically reliable.

2           We have paramedics giving times based on  
3           looking at their watch, and again I don't know  
4           how well coordinated those times are. So over a  
5           period of minutes there could be quite a  
6           variability in those recorded events, so I can't  
7           say specifically how long passed from the time of  
8           the last tasing applications to the time that the  
9           individual died.

10    Q.    You were --

11                   THE COURT: Don't you typically  
12           accept the time frames that law enforcement  
13           people present to you?

14                   THE WITNESS: We accept them as  
15           being --

16                   THE COURT: It sounds like a  
17           questioning.

18                   THE WITNESS: It's a general  
19           acceptance. It gives us an approximation.  
20           We can't say specifically that those times  
21           are correct.

22                   And, Your Honor, if you recall  
23           some of the other testimony we have had,  
24           they have stated that there are differences  
25           between what was recorded on the TASER

1 probes and what was the actual time, and  
2 there have been -- had to be some  
3 corrections there.

4 THE COURT: But you certainly have  
5 outside limits, don't you?

6 THE WITNESS: We have an  
7 approximation. It's an approximation at  
8 best. I can't say a particular time period  
9 at 1:02 point whatever a particular event  
10 definitively happened. I have gotten an  
11 approximation of minutes. I can't say  
12 exactly how many.

13 THE COURT: But I have heard some  
14 of the experts for the Plaintiff that if it  
15 was contemporaneous with the death, that  
16 certainly was a contributing cause. They  
17 can see that.

18 THE WITNESS: I believe it is  
19 contemporaneous. I believe the time frame  
20 we are talking about here is one of concern  
21 and a period of minutes following the  
22 application --

23 THE COURT: That's one of the  
24 disputes. What if it was 15 minutes went  
25 by from the last discharge of the TASER to

1 the person's death?

2 THE WITNESS: I would still  
3 consider that as being a short time period.

4 THE COURT: 15 minutes?

5 THE WITNESS: Yes.

6 THE COURT: But is it a  
7 significant time frame, whether it be 15 or  
8 five or one second?

9 THE WITNESS: It's something that  
10 needs to be looked at in the overall  
11 appearance of the case. I can't say  
12 specifically. If we have a situation where  
13 someone is tasered, they fall and strike  
14 their head and get a head injury, it may  
15 take days for them to die.

16 So you have to look at the time  
17 frame and its approximation and look at the  
18 victim situation that we have here, and we  
19 have -- I believe there are a period of  
20 minutes. I can't say specifically two  
21 minutes, five minutes, seven minutes. I do  
22 believe there is a period of minutes in  
23 each of these cases.

24 THE COURT: Go ahead.

25 BY MS. RUBRIGHT:

1 Q. Dr. Kohler, you didn't do anything or ask any  
2 questions or investigate what the time lapse was,  
3 isn't that correct?

4 A. We reviewed the records, so we did do that  
5 portion. We did investigate by reviewing the  
6 records that they provided to us.

7 Q. You were provided with a computer printout from  
8 the Tasers, the actual guns that were used or the  
9 weapons that were used, from the three officers,  
10 you had the computer printout; is that right?

11 A. Yes, we do.

12 Q. Did you assume that those were accurate times?

13 A. We assumed that those are the times provided to  
14 us that the weapon was discharged.

15 Q. Did you assume that those were contemporaneous  
16 times, that it was not off at all?

17 A. The times recorded on those discharges are  
18 different on the weapon as opposed to what's on  
19 the printout. We have the time that was recorded  
20 on the individual weapons. We don't know how  
21 they were synchronized, and there was a corrected  
22 time that one of the police officers created to  
23 say how -- when that happened --

24 Q. Was that provided to you?

25 A. That was provided.



1 Q. Well, that officer testified, and his name is  
2 Steve Prough, and you sat here and heard him,  
3 didn't you?

4 A. Yes.

5 Q. And Officer Prough stated that at 6:12:46 the  
6 last TASER probe cycle ended, that was the last  
7 cycle.

8 A. Yes.

9 Q. Do you recall hearing that?

10 A. I do recall that.

11 Q. And do you recall hearing Paramedic Deihl state  
12 that at 6:25 Dennis Hyde was alive and he had 28  
13 respirations because he counted them and he  
14 looked at his watch?

15 A. He looked at his watch. I don't know how that  
16 compares exactly to the dispatch times, but yes,  
17 those statements were stated and I agree.

18 Q. I didn't ask you about the dispatch times. You  
19 heard the testimony of those two witnesses,  
20 didn't you?

21 A. Yes, I did.

22 Q. Okay. So if we just do simple subtraction, 6:12  
23 and 6:25, that's 13 minutes, isn't it, Dr.  
24 Kohler?

25 A. It would be 13 minutes assuming they are

1           synchronized time.

2       Q.   That Paramedic Deihl's watch is synchronized?

3       A.   That his watch is recording time at the same rate  
4           that the TASER is, and I can't say that for  
5           certain. It is a period of minutes.

6       Q.   Let's say it's off two minutes.

7       A.   Which direction?

8       Q.   That it's actually less.

9       A.   Okay.

10      Q.   Are you telling me that that time lapse does not  
11           matter to your opinion?

12      A.   In this situation it is still a period of  
13           minutes, and I believe that it does not play a  
14           major role in how we would determine these cases.

15                   MS. RUBRIGHT: I have no other  
16                   questions, Dr. Kohler.

17                   THE COURT: Okay. Anything else?

18                   MR. MALEY: No, Your Honor,  
19                   nothing of this witness.

20                   THE COURT: You can step down.  
21                   Thank you, Dr. Kohler.

22                   (The witness was excused.)

23                   MR. MALEY: Like to call  
24                   Dr. Sterbenz.

25                   THE COURT: Okay. Doctor, just

1                   raise your right hand, first of all.

2                                   -   -   -

3                                   GEORGE STERBENZ, M.D.

4           a witness, herein called on behalf of the  
5           Plaintiff as on cross-examination, being first  
6           duly sworn as provided by law, was examined and  
7           testified as follows:

8                                   THE COURT:   Have a seat.   And just  
9                                   for the court reporter state your full  
10                                  name.

11                                  THE WITNESS:   My name is  
12                                  Dr. George Sterbenz.

13                                  THE COURT:   Spell your last name,  
14                                  sir.

15                                  THE WITNESS:   S-t-e-r-b-e-n-z.

16    CROSS-EXAMINATION

17           BY MR. MALEY:

18       Q.   Good morning, Doctor.   How are you today?

19       A.   Good morning.

20                                  THE COURT:   And you call him as on  
21                                  cross-examination?

22                                  MR. MALEY:   That's correct, Your  
23                                  Honor.

24           BY MR. MALEY:

25       Q.   Doctor, we have had occasion to spend some time

1           together in depositions, correct?

2    A.   Yes.

3    Q.   And you have given sworn testimony on prior  
4           occasions?

5    A.   Yes.

6    Q.   You do not hold yourself out as an expert on  
7           TASER electronic control devices, correct?

8    A.   Correct.

9    Q.   You are not able to answer questions regarding  
10          characteristics of TASER electronic control  
11          devices, correct?

12   A.   Correct.

13   Q.   You do not hold yourself out as an expert on  
14          electronic control devices regardless of  
15          manufacturer, correct?

16   A.   That's correct.

17   Q.   And you're not an expert on the TASER brand X26  
18          device, correct?

19   A.   Correct.

20   Q.   And you don't hold yourself out as an expert on  
21          the effects of a TASER electronic control device  
22          on the human body, correct?

23   A.   Can you be more specific?

24   Q.   Is there anything about the question you didn't  
25          understand?

1 A. You state that I'm not an expert on the effects  
2 of the TASER device on the human body?

3 Q. That's correct. I asked you that question in  
4 your deposition, correct?

5 A. That's essentially correct.

6 Q. And you answered no, that you were not holding  
7 yourself out as an expert on the effects of a  
8 TASER electronic control device on the human  
9 body, correct?

10 A. Correct.

11 Q. Now, you're not an expert on the effects, if any,  
12 of a TASER electronic control device on a human's  
13 arterial blood gases, correct?

14 A. That's correct.

15 Q. Or on human's pulmonary function, correct?

16 A. That's correct.

17 Q. Or on the effect of such a device on a human's  
18 cardiac system, correct?

19 A. That's correct.

20 Q. You're not qualified to render an opinion whether  
21 a TASER device can raise a human being's body  
22 temperature, correct?

23 A. I don't believe that is correct.

24 Q. But when I took your deposition under oath, you  
25 agreed with that statement, did you not?

1 A. I think there is experimental data that indicates  
2 that body temperature can be raised by the  
3 effects of a TASER device.

4 Q. You didn't cite any of that to me in your  
5 deposition, when I asked you, did you?

6 THE COURT: Why don't you read to  
7 him what your question was and what he  
8 answered.

9 MR. MALEY: I will do that, Your  
10 Honor.

11 BY MR. MALEY:

12 Q. I direct your attention to your first deposition,  
13 Dr. Sterbenz, page 126. This is the deposition  
14 of June 1st, 2007. Have you found page 126?

15 A. Do --

16 Q. I apologize. You may have the wrong notebook.  
17 That wouldn't match up, would it.

18 Have you found page 126?

19 A. Yes.

20 Q. I asked the question, line eight: Are you  
21 qualified to render an opinion as to whether a  
22 TASER device can raise a human body's  
23 temperature. What's the answer you gave at line  
24 11?

25 A. I stated, I believe the answer would be no.

1 Q. Next I asked you: Have you ever researched the  
2 subject of whether a TASER device can elevate  
3 body temperature on a human? What was your  
4 answer?

5 A. I stated, No. I said, I had not performed  
6 research.

7 Q. And I asked you next: Have you ever -- and you  
8 have never read a peer-reviewed scholarly  
9 publication that addresses the subject of whether  
10 TASER application can elevate the human body  
11 temperature?

12 And you said, I don't recall at this time,  
13 correct?

14 A. That's what I answered, yes.

15 Q. Now, you agree that forensic pathologists should  
16 not speculate?

17 A. Yes.

18 Q. You agree that forensic pathologists should base  
19 their opinions on generally accepted medical  
20 principles?

21 A. Yes.

22 Q. And forensic pathologists should base their  
23 opinions on generally accepted scientific  
24 principles?

25 A. Yes.

1 Q. Doctor, let's talk a little bit about drugs. You  
2 would agree that someone who is intoxicated with  
3 illicit drugs that it would be appropriate for  
4 them to receive prompt medical attention?

5 A. Yes.

6 Q. You agree there is no safe level of  
7 methamphetamine intoxication in human beings?

8 A. Yes.

9 Q. And if someone ingests the drug methamphetamine,  
10 they should receive prompt medical attention, you  
11 agree?

12 A. I agree that an individual is deserving of  
13 medical attention if they're using a drug  
14 illicitly, yes.

15 Q. Now, in Mr. Hyde's situation in the basement you  
16 would agree that his behavior was agitated?

17 A. No, I do not agree.

18 Q. Do you agree that he was in need of medical  
19 attention?

20 A. You're asking me questions regarding --

21 Q. Mr. Hyde?

22 A. -- Mr. Hyde regarding issues that I was not  
23 present for. I can agree that others did  
24 interpret his behavior as such. Obviously I  
25 cannot give firsthand knowledge that Mr. Hyde was



1           agitated or -- or specifically to Mr. Hyde's  
2           mental state at the time in the basement on the  
3           day of his death because I was not there.

4       Q.   And you have -- you have to rely on the firsthand  
5           witnesses, the officers, and the paramedics on  
6           the scene, correct, for that information?

7       A.   That is correct.

8       Q.   And you have no reason to state that their  
9           observations were inaccurate, correct?

10      A.   Your question is I have no reason to state their  
11          observations are inaccurate?

12      Q.   That's true.

13      A.   No, I cannot objectively confirm the accuracy of  
14          their statements.

15      Q.   You have no reason to believe that their  
16          statements are inaccurate?

17      A.   And my answer is I have -- I am not able to  
18          confirm the accuracy of their statements. I  
19          cannot objectively confirm the accuracy of their  
20          statements. I don't have anatomic evidence at  
21          the time of autopsy that confirms the accuracy of  
22          their statements. I don't believe them to be  
23          specifically deceiving or lying in their  
24          statements.

25                           THE COURT:  You're getting a

1                   pretty fancy answer, but don't you --  
2                   didn't you rely on their statements and  
3                   other information in making your report?

4                   THE WITNESS: I absolutely do. I  
5                   do have to rely on their statements in  
6                   making my report.

7                   THE COURT: But you give me the  
8                   impression like, well, maybe I shouldn't be  
9                   relying on them.

10                  THE WITNESS: Well, very good  
11                  point. I -- I do take into consideration  
12                  their statements; however, there is two  
13                  issues. Do I -- can I confirm that their  
14                  statements are indeed absolutely accurate?  
15                  I can't objectively confirm that, but, of  
16                  course, I do consider their statements, and  
17                  I have no reason to believe that their  
18                  observations are intentionally inaccurate.

19                  THE COURT: Well, don't you do  
20                  that everyday, every time you perform an  
21                  autopsy?

22                  THE WITNESS: Every time, every  
23                  time. I am given observation statements  
24                  that are in part -- that individuals I  
25                  trust are believing they're telling me what

1                   they believe to be true. Some of that  
2                   information is indeed true, and some is not  
3                   exactly accurate, and I try to judge to  
4                   what extent I can objectively confirm their  
5                   statements with my autopsy observations.

6                   I attempt to look at the physical  
7                   findings and to see to what extent I can  
8                   objectively corroborate their statements  
9                   and then make a decision as to what extent  
10                  I need to interpret their statements versus  
11                  the physical findings and formulate a final  
12                  decision.

13               BY MR. MALEY:

14       Q.    Doctor, could you please turn to page 191 of your  
15              prior sworn testimony?

16       A.    Yes.

17       Q.    Line 19, All right. And do you understand, we  
18              can quarrel with what words to use, that Mr. Hyde  
19              on occasion in the basement was acting wildly?

20              Would you please read to the court the answer  
21              you gave under oath?

22       A.    Yes. I understand that he was described as such,  
23              and I have no reason to believe that it is  
24              inaccurate.

25       Q.    Thank you. Now, in the basement with Mr. Hyde

1           you agree he could not be given medical attention  
2           until he was restrained?

3    A.   I believe that is -- I do not know with certainty  
4           that he could not be given medical treatment  
5           until he was restrained.  If indeed what is  
6           described as him having violent behavior and  
7           agitated behavior, that would be consistent.

8    Q.   Doctor, at page 191 of your deposition I asked  
9           you the question, line 25:  Could Mr. Hyde be  
10          given medical attention prior to being captured,  
11          controlled, and/or restrained?

12                At line three of page 192 what was your  
13                answer?

14   A.   Of course not.

15   Q.   Thank you.  Now, the TASER device was used by law  
16          enforcement to bring Mr. Hyde under control,  
17          correct?

18   A.   Correct.

19   Q.   Let's talk about excited delirium for a moment.  
20          You acknowledge and are aware that the National  
21          Association of Medical Examiners has a  
22          recognition of that entity of excited delirium,  
23          correct?

24   A.   Yes.

25   Q.   Now, let's talk about blood and exsanguination.

1 Humans can die from exsanguination, agree?

2 A. Yes.

3 Q. And someone who has a transection of the radial  
4 artery can potentially result in significant loss  
5 of blood, exsanguination, and death, correct?

6 A. Exsanguination of the major artery can result in  
7 death, yes.

8 Q. Including the radial artery, correct?

9 A. Including the radial artery.

10 Q. And where is the radial artery?

11 A. It is an artery in the arm.

12 Q. Including the wrist?

13 A. Yes.

14 Q. Now, with respect to Mr. Hyde you did not  
15 specifically attempt to measure the volume of  
16 blood present at the scene in that home, correct?

17 A. That is correct, I did not specifically extract  
18 the blood from his body and measure the volume.

19 Q. Now, let's talk about TASER involvement in this  
20 matter. It is your opinion that TASER is not an  
21 independent cause of death in Mr. Hyde's demise,  
22 true?

23 A. True.

24 Q. Let's talk about timing. You don't know how long  
25 it was from the last TASER application until Mr.

1           Hyde went into arrest, correct?

2       A.   There is -- that is correct, yes.

3       Q.   And clearly the period of time has some  
4           significance, agree?

5       A.   Yes.

6       Q.   And you don't have an opinion as to what the  
7           timeline is to determine whether a TASER is  
8           contributory or not contributory to a human's  
9           demise, true?

10      A.   I'm sorry, could you repeat that question?

11      Q.   Certainly.  You do not have an opinion as to the  
12           time duration at which you can say either that  
13           the TASER was causative contributory or was not  
14           causative contributory, that is the time period  
15           from last application until a human's arrest?

16      A.   Your Honor, there is no time period from which an  
17           inflicted force that results in an injury and  
18           then later brings about or contributes to death  
19           would not be considered part of that mechanism of  
20           death.

21                So if the TASER, for example, resulted in the  
22           individual falling down striking their head and  
23           receiving a head injury, that later results or  
24           contributes to their death 30 years later, that  
25           application of the TASER would still forensically

1           be considered even 30 years later. Certainly  
2           that is an acceptable principle.

3    Q.   So 30 years later you would still list TASER as a  
4           contributory cause of death, is that your  
5           testimony?

6    A.   My testimony is if an injury is inflicted, and it  
7           does contribute to death, interval from the time  
8           of the infliction to the time of death is  
9           irrelevant.

10   Q.   I direct your attention to page 150 of your prior  
11           sworn testimony, Doctor. Please tell me when you  
12           found page 150.

13   A.   I will. Yes.

14   Q.   Line nine: All right. Do you have an opinion as  
15           you sit here today as to the time duration of  
16           which you can say either that the TASER probably  
17           was causative or the TASER was probably not  
18           causative from the last TASER application on a  
19           human until arrest?

20           You asked, On a human?

21           I said, Yes.

22           What was your answer at line 17?

23   A.   I have not rendered an opinion, and I don't have  
24           one currently.

25   Q.   Thank you. You don't have an opinion as to

1           whether Mr. Hyde went into arrest within five  
2           seconds of the last TASER application, correct?

3    A.   That's correct.

4    Q.   Or 60 seconds, correct?

5    A.   That's correct.

6    Q.   Or five minutes, correct?

7    A.   That's correct.

8    Q.   But you agree that the longer the period of time  
9           from the last application of an electronic  
10          control device until arrest that it's less likely  
11          that the device contributed to death?

12   A.   Once again, there is no definite period of time  
13          which would negate the inflicted effect of any  
14          force if that force can be shown to have a  
15          continuous sequence of events.

16   Q.   Could you please turn to page 194 of your prior  
17          sworn testimony, Doctor?

18                Have you found it?

19   A.   Yes.

20   Q.   Line nine, question: Do you agree with the  
21          statement that the longer the period of time from  
22          the last application until arrest the less likely  
23          it is that TASER contributed to death?

24                What did you answer under oath in your  
25          deposition?



1 A. I said, I would conform to that.

2 Q. And you said it twice, right, I would conform to  
3 that, I would conform to that, correct? Did I  
4 read that properly?

5 A. Yes.

6 Q. Now let's talk about percentage contribution.  
7 You're not able to state to a reasonable degree  
8 of medical certainty what percentage contribution  
9 an electrical pulse incapacitation contributed to  
10 Mr. Hyde's death, correct?

11 A. That's correct.

12 Q. And same for Mr. McCullaugh, correct?

13 A. That's correct.

14 Q. You will only contend there is some contribution,  
15 the bare minimum, some fraction of a percent,  
16 correct?

17 A. At the very least a fraction of a percent.

18 Q. You don't contend that the TASER device was  
19 greater than 25 percent of the cause of Mr.  
20 Hyde's death or Mr. McCullaugh's death, true?

21 A. I haven't rendered an opinion as to what  
22 percentage that a TASER device contributed to Mr.  
23 Hyde's or Mr. McCullaugh's death.

24 Q. And so my statement would be true?

25 A. Your statement is I agree that it's not 25

1           percent.

2       Q.   No.  You do not contend that the TASER  
3           contribution was greater than 25 percent, agreed?

4       A.   I don't contend that it's any percentage.  I  
5           haven't rendered an opinion as to any percentage  
6           of contribution.

7       Q.   So you don't --

8       A.   So it could be 25 percent, but I'm not saying  
9           that it is definitely 25 percent.

10      Q.   And that's my questions of you, Doctor, and I can  
11           move through this quickly.  I asked you these  
12           questions at your deposition, and you answered  
13           them.  If you can answer again, I would  
14           appreciate it.

15                Let's take ten percent, you don't contend  
16           that TASER contributed to ten percent  
17           contribution in Mr. Hyde's death, correct?

18      A.   Not ten percent.  I haven't made an opinion as to  
19           any percent contribution.

20                       THE COURT:  I think he has  
21           answered.

22                       MR. MALEY:  All right.  It's --

23                       THE COURT:  It's noon.  I don't  
24           know how much longer you're going to be.  
25           Maybe we could break for lunch or not.

1                   You're going to ask some questions?

2                   MS. RUBRIGHT: I will.

3                   MR. MALEY: We probably have 15  
4 minutes.

5                   THE COURT: The previous  
6 admonition I gave you applies. Let me just  
7 refer you -- have you shown him the  
8 stipulated facts, by the way?

9                   MR. MANLEY: Uh-huh.

10                  THE COURT: The doctor has seen  
11 them?

12                  MR. MANLEY: Uh-huh.

13                  THE COURT: We will be recessed  
14 until 1 o'clock.

15                               - - - -

16                   (A luncheon recess was had.)

17

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